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ESSAY

ON THE

NECESSITY OF IMPROVING

OUR NATIONAL FORCES.

BY

WILLIAM THEOBALD WOLFE TONE,

FORMERLY OFFICER OF LIGHT CAVALRY, AID-DE-CAMP IN THE FRENCH
SERVICE, AND MEMBER OF THE LEGION OF HONOUR.

Qu' ayant une armée, il faut l'avoir au moins égale, et, s'il se peut supérieure à celles des autres puissances en discipline et en instruction. Car ce qui coûte cher, tant au présent que dans l'avenir, c'est une armée médiocre ;

Guibert, Défense du système de guerre moderne. Chap. II.
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PREFACE.

THE object of this Essay is to disseminate through this country some useful notions, on important subjects, which appear to be generally misunderstood, and to investigate some popular errors, which may hereafter prove very mischievous.

It has been the peculiar happiness of America, that, to this day, she has had little occasion for military knowledge and military institutions. Whilst the rest of the world was agitated by war and revolution, she was allowed to ameliorate in peace her civil government, to augment her wealth and population, and to proceed in the career of improvement with a rapidity as yet unexampled. In consequence of this state of security and tranquillity, her people, with a very few exceptions, are completely destitute of military knowledge. They are not aware of the weakness and insufficiency of their present means of defence, nor of the forces which may be turned against them. Their success in the last war, which was so highly creditable to their spirit and patriotism, has inspired them with a belief that they are strong enough to repel every attack.

Prepossessed with this belief, the crudest notions have been advanced and maintained by statesmen

and orators of the highest political talent, largest views, most brilliant eloquence, and purest patriotism and integrity. The handful of troops, composing the regular army of the United States, has been viewed with jealousy, and arraigned with virulence; the liberties of the country have been almost proclaimed in danger, from their spirit of insubordination. The necessity of maintaining any standing force in time of peace, or of making any preparations for a time of war, has been loudly denied; the navy and militia, even under the various establishments of the different states, have been declared sufficient for the purposes of national defence, and any attempts to put the organization and service of the latter under the more immediate inspection and control of the executive central government, has been denounced as unconstitutional, and leading to military tyranny and usurpation.

But the situation of America is materially altered. Europe, after all her struggles for liberty, appears, at least for the present, to have settled in lassitude and submission, and the combined efforts of her coalised sovereigns are joined to keep her down. At the head of this great confederation, Britain stands paramount. These powers, and Britain especially, view this country with jealous and hostile feelings, as still maintaining those principles which they have crushed every where else, as fostering them and keeping them alive, perhaps to their future ruin. Britain, besides, fears for her naval ascendancy and commercial monopoly, from our rising trade and improving navy. Under all these circumstances, we

cannot doubt, that if it is not in her power to destroy America, to overturn her government and constitution, break her union, and reach to the sources of her prosperity, she will, at least, supported by the whole coalition, endeavour to put a stop to her further progress.

Before the late wars and revolutions which have changed the whole face of Europe, the military institutions of England were little superior to those of America; a fact of which our people, who are too apt to take all their notions of that country from its own writers, are not sufficiently aware. This is well known to all military writers in Europe; it would lead us, however, too far to prove it by examples and illustrations. But during the course of these wars, the whole character of her policy, government and constitution, has been gradually altered; she has assumed another ground amongst nations, and has become a formidable military power.

To develop and illustrate this change, to dispel the dangerous illusions which our success in the last war has spread through the people, to prove that much more powerful means may and probably will be directed against us on the next occasion, such is the object of the first part of this work. To prove that our present means of defence would be totally inadequate to resist such an attack; that they imperiously require to be improved, organized and augmented, and that our liberties can run no danger from such improvements on a moderate but sufficient scale, such is the object of the second.

I am aware that many of the opinions which I have expressed, will not at first view be popular; some

of our institutions I have considered as faulty, some measures as ill directed and ill organized; the conduct of some portions of the nation, of powerful parties and corporate bodies, I have blamed on several occasions, and even considered some of those national triumphs on which our people pride themselves, as useless and unprofitable. But how should a good citizen serve his country? Is it by flattery and declamation? encouraging the people in a false and overweening opinion of their own force? undervaluing that of their enemies? disguising to them every wholesome truth, and inspiring them with a vain confidence, the sure forerunner of disaster and defeat? Must he forever cry, we are the first, the most enlightened, the most instructed, the bravest people in the world; our laws, establishments and institutions are all faultless; our militia, an army of citizens and freemen, is irresistible; our navy superior to all navies, and able to crush every opposition.— We need no instruction, we need no improvement?

In a republic, where no operation can be undertaken by the government without the consent and approbation of the people, deceptions of such a nature are peculiarly mischievous and impolitic. It is the glorious, but sometimes inconvenient privilege of a republic, that its government cannot cover its operations with darkness and mystery. They must be explained; they must be open as the day, that the people may judge of them. This must be my justification to those who would accuse me of exposing our weak points to the enemy. The people must know what kind of danger renders such and such measures necessary; what evils they tend

institutions of that country, which have served as models to those of all Europe, I claim some right of understanding the subject of which I treat.

Before I conclude, I must claim some indulgence for defects of style. The English language is ill adapted to write on military subjects; it is remarkably deficient in military technical expressions, corresponding to those of the French. I have perhaps insisted too much upon elementary notions and principles, but they appeared to me to be little known to the generality of the people. The same ideas, the same words are repeated perhaps too frequently; sometimes for the sake of clearness, sometimes from the necessity of recurring to the same idea in the course of argument, and inculcating it more strongly. But if my meaning is always plain, and easily understood, I shall be satisfied; and if the matter of the work be approved of, I hope that the form and manner will be excused.

CHAPTER I.

A brief Analysis of the Causes which have changed England from a free Nation into a great Military Power, and of her Military Improvements.

A FRENCH engineer of distinguished talent, Chevalier Dupin, has lately travelled through England to examine into the present state of her military establishments. The view which that able officer has given of her recent military improvements, and of the immense means of hostility collected in her arsenals, is calculated to inspire every reflecting mind with the most awful forebodings.—(1) *vide note 1.* However selfish her policy may have been, however offensive her pride, whatever evils she may have inflicted upon himself, or upon his country, still every friend of reason, justice, and liberty, must confess that the world owes incalculable benefits to England. Her constitution, however imperfect and overpraised, afforded the first model of a liberal government, sanctifying the individual rights and the individual independence of man. English principles, and English laws, laid the foundation of American freedom. To see that country rapidly exchanging the character of a free nation for that of a military power, must strike even her greatest enemies with melancholy reflections.

The causes of this unfortunate change are easily traced.—When France, towards the conclusion of the last century, broke the shackles of a weak and vicious government, the jealous selfishness of England took the alarm; some statesmen may have perceived and justly feared, that France, delivered from its feudal trammels, would soon have eclipsed

England ; the short-sighted and bigoted hatred of the common people did not look so far, and they were more honest in their open aversion. But the cry that France must be put down, and government strengthened for that purpose, was nearly universal. The generous voice of the few who sympathised with the cause of liberty in every part of the world, was drowned by the general clamour, and all opposition to government became unpopular. Europe was paid, was armed by England, and from the Caucasus to the pillars of Hercules, torn from her foundations and hurled upon France. Inexperienced in the formation and march of a free government, the French on their side were obliged to forego their attempts for establishing it on a firm and regular foundation ; terror at such a universal attack forced them also to strengthen their executive, and the crimes of Robespierre and the jacobins, and the military reign of Napoleon, were thus brought, were even forced on by the efforts of England and continental Europe, to crush the rising liberties of France.

But these efforts soon recoiled upon themselves. When France was forced to become a military nation, she found in her old establishments and institutions a strength which the world had not foreseen. She possessed the only corps of scientific engineers and the best artillery in Europe, her arsenals were provided on the grandest scale, a triple line of fortresses, the eternal monuments of Vauban's genius, covered her frontiers, and all these establishments had been fostered and improved with constant care since the age of Louis XIV. The inexperience and indocility of her troops, was almost compensated by their enthusiastic valour ; the science of war and of tactics had been a subject of study and meditation to her officers for two centuries, and after some defeats, they were able to face, to beat, to conquer all their enemies. Europe was subdued ; a splendid despotism, from Russia to Spain, erected on the ruins of these powers who well deserved their fate, and the face of affairs so reversed, that England, in her turn, had to stand alone, the combined hostility of the world.

She was saved by her naval force, and insular situation, and her people certainly displayed a constancy which, had the origin of the contest been of a purer and more liberal nature, would have reflected immortal glory on her name. But the cry for strengthening the government was stronger than ever, the most alarming encroachments upon the liberty of the subject and purity of the constitution, were viewed with indifference—the end sanctified the means. The government availed itself fully of the occasion, and laid the foundation of a military despotism, perhaps as formidable to the exterior, but certainly as well calculated to overpower all opposition of the people at home, as that of the great ruler of France. The faults of Napoleon, that cooled the French in his cause, and inspired the subject nations with the desire and hope of retrieving their liberty; his disasters in 1812 and 1813, the combined efforts of Europe, at length overturned his colossal power, and closed at least for the present the bloody and brilliant scene of the revolution.

And what has been the result? England, like France, has become a military power; she has subverted her rival, and crowned her arms with military fame. But she has lost, perhaps irretrievably lost, that character and those institutions which made her greatness and her glory. Or rather under an improved form and better auspices, they have emigrated across the Atlantic.

The world in general is scarcely yet aware of the total change which has taken place in the character of England, in her constitution, and in the relative rank which she holds amongst nations. England was a rich, industrious, free and enlightened country; her manufactures, trade and agriculture were equally flourishing, and she was strong by her navy, her opulence, and the proud, firm and independent character of her people. Her army was insignificant both in its numbers and quality, (2) *vide note 2*; but the bravery and patriotism of her citizens secured her against foreign invasions.

The yoke of the English weighed heavy upon the countries subject to them ; they were cruel and harsh masters, and arrogant and overbearing to strangers ; there was a great deal of corruption in their government, but it had not spread universally amongst the middling and lower classes.

Exteriorly, England had little or no influence, and when the government attempted to interfere in the contests of continental Europe, their measures were generally unpopular. A blind and rooted hatred against France was the only sentiment which sometimes roused the passions of the people, and turned them aside from their true interests, peace, commerce and industry. Jealous of their small military establishment, they carefully kept it down, and the only part they took in European wars, was by assisting with subsidies those sovereigns, who courted them for that purpose in the most humble style.

At present, since the blind passions of the people have enabled the government to form a powerful army, they have actively interfered in all the contests and interests of Europe, and with Russia, direct the whole machine of its political system. British blood has been poured as prodigally as Napoleon poured that of the French ; British armies have appeared in every quarter of the world, and their empire has spread over the globe in every direction. The influence of the cabinet of St. James has been uniformly exerted to put down the spirit of liberty and improvement, and Saxony, Genoa, Italy, Poland, Norway, as well as France, have been pressed under its iron weight, or betrayed by its fallacious promises. In Spain it has supported Ferdinand and the inquisition. In short, England is no longer the proud and independent country she was ; like that of all the great empires that have successively appeared in the world, her government is oppressive and despotic at home, ambitious, grasping and rapacious abroad.—England was considered as the bulwark of liberty ; she is become one of its chief oppressors.

The change which has taken place in the interior, is not at first visible to the cursory view of a traveller. The high and finished state of the cultivation, the beauty, luxury, and opulence which shine all around, the immense profusion of wealth, the perfection of the manufactures, the busy bustle of trade, the ingenious and universal application of machinery to every useful purpose, and the prodigies which it effects, give to the whole country an appearance of unparalleled plenty and prosperity. But a very little observation discloses the melancholy fact, that all this is forced and artificial. Such is the weight of the taxes and charges, that without the most incessant activity, labour, and industry, the people must starve. Anxious about their very existence, they are grown callous and indifferent on every other subject; and delicacy, honour and principle, love and regard for liberty, proper pride and independence of character, the honest peculiarity of the old Englishman, are almost lost in the exclusive and universal ardour for gain. The precariousness of the means of livelihood in all the industrious classes is inconceivable; the farmer, trader, and manufacturer live on their capital, the labouring poor are in a state of the most abject misery and distress, and the number of paupers and criminals has consequently augmented in such a frightful ratio, that it baffles calculation and passes belief.

The corruption of the administration, and its prodigality and tyranny, from the ministry, great sinecure placemen, and borough-mongers, down to the tax-gatherer, excisemen, tytheman and spy, their arbitrary measures, the suspension of the habeas-corpus act, and consequently of the liberty of the press, the national debt, the abuses of the banking system, and multiplication of forgeries, the multiplication of poor-rates, pauperism and crimes, have been too ably and too frequently exposed to require any comments upon them here. Loaded with debt, and corrupted to the very core, the people and government of England are, at this day, the most profligate and unprincipled as well as the most powerful and

splendid in the world. They are miserable and unsatisfied under all their greatness, and must be so under every change of situation. War cannot make them worse, peace cannot make them better. Loud as the public misery made them call for peace at the close of the late contest, a most numerous and influential party wish again at this day for war, because they did not find in the cessation of hostilities those benefits which they expected, because, great as were the charges of war, it gave them a *monopoly* of trade, which they are fast *losing*, and because the rising industry of other nations is entering in competition with theirs, and requires to be stopt.

Such is the present situation of England, such is the result of the old clamour of the infatuated people, France must be put down, government must be strengthened. France has been put down, and England is reduced, at least, at home, very nearly to the situation of France some time before the revolution. On the ruins of her independence and of her principle, is raised the enormous edifice of the executive power and military despotism. But the world, we repeat it, and the people of America in particular, are not aware on what a military power that despotism is founded—nor of the complete change which has taken place in the military system of that country. It is well known that in the last war, her armies were prodigiously augmented, that they were actively thrown in the contest, that one great general like another Marlborough appeared at their head, and that a number of able officers were formed under him; that they obtained splendid victories, and conjointly with the other nations of Europe overturned the empire and military ascendancy of France. This, however, is not all, and those who are aware of no greater change, when they see successive acts passed for reducing the numbers of the army, think that every thing is gradually returning into its ordinary channel.—But it must be observed :

1st. That a military spirit has been created in the nation, almost as universal as it was in France under Napoleon.

The uniform has become fashionable and honourable, in a country where no drum was allowed to be beaten in the city of London, and every young man, if he does not enter the army or navy, aspires at least to belong to some militia, volunteer or yeomanry corps.

2d. That military services are become the surest road to titles, honours and dignities. A number of peerages have been distributed in the army, and the order of the Bath, organized on the model of the legion of honour; an innovation for which Walpole or North might have lost their heads.

3d. The composition of the army has been greatly ameliorated. The venality which disgraced the administration of the Duke of York in the time of the famous Mrs. Clarke has been corrected. Although promotions by purchase or family interest still exist in the subaltern ranks, yet a number of able officers have risen by service or seniority in the last war, and the government has an ample choice of subjects to fill all high and commanding posts. The artillery and engineers will hereafter be exclusively recruited with instructed officers from the military schools. The discipline, the armament of the troops, their clothing and equipment, have been equally ameliorated on the model of the French army.

4th. A good staff has been organized. That service was in its infancy in Britain at the beginning of the war, and was organized in its present form by some French emigrant officers, Messrs. Tromelin, Phelippeaux, &c. That staff is carefully maintained.

5th. It may be seen from the work of Mr. Dupin, with what sedulous care and attention the British government maintain and improve all their military and naval establishments, how they have organized and keep in readiness for action the most complete, effective, and numerous *materiel*, that was

ever possessed by a military power, and what importance they attach to the diffusion and improvement of military education, principally in the corps of their engineers and artillery. This improvement can scarcely yet be perceived. Many years must elapse after the creation of military schools, before their influence can be felt in the army. The old officers, however uninstructed and inefficient, cannot be displaced to put young men in their room. The polytechnic school in France has scarcely yet exerted a sensible influence on the improvement of those branches of the military profession, which it was destined to recruit, and which indeed were already carried to a high state of perfection before the revolution by the fostering care of the government since the days of Louis XIV. The British engineers, on the contrary, ranked very low in the estimation of the best judges, but their government is forming the elements of a new corps in their military schools. Their artillery is better.

6th. Although the British government have disbanded some corps of infantry and cavalry which they can easily recruit again; although to satisfy the clamours of the reformers and economize their finances, they may disband some more, yet they carefully keep up their military institutions, and a mass of troops sufficient to awe any opposition at home, and in case of war, to embody in their ranks any number of recruits and communicate to them their spirit and their discipline. I do not exactly know the present force of the British army. But without including their colonial service in the East Indies, in Africa and America, I believe the whole mass of their European troops of all kinds, will not be found under 200 battalions of foot and 200 squadrons of horse, a force more than sufficient for these purposes. And if the exclusive devotion of these troops to the government that pays them, and from which they expect recompenses and promotion, if their total indifference to public spirit and patriotism be doubted, let it be remembered *how easily they have been turned out against the people on recent occasions.*

However strongly the power of the British government may be built on such an army, and on such a navy, they do not exclusively rely upon them. In the first place the very abuses of their administration, its prodigality, and the number of people who live on the interest of the national debt, have intimately connected with their cause a great mass of the population, who must stand or fall with them. The ramifications of political corruption reach to the lowest ranks of society. In the next place, the splendour and brilliancy of their successes have attached to them a numerous class, who forget the loss of their liberty, dazzled by the external glory to which the British name has been raised. With a parliament composed, organized and drilled as the British parliament is at this day; with such a mass of ready instruments in such a needy and unprincipled population; with such an army and such a navy at the disposition of government, what is become of English liberty? It is time for other nations to look to theirs. For what will that government do with the military force and spirit which they have created. France was obliged, in the same circumstances, to keep her army employed in foreign war and conquest.

Let it not be imagined that the financial embarrassments of Britain will prevent her from following that course. Whatever be the distress of the people, whatever ruin war may bring upon them, the government are taking another ground, and rendering themselves independent of its support. If they create so numerous a class, exclusively devoted to their interests; if they can only secure enough to pay and maintain a force that will keep down the people, what need the ministry care for their murmurs, their distress, and their ruin. When their army acquires the same superiority over the other armies of Europe which the French possessed in the time of Napoleon; when their navy surpasses the collected naval force of the rest of the world, they need no longer subsidize foreign nations; they can even abridge their means and liberty, their industry and trade, draw contributions from them, and support their own forces at their expense.—(3) *vide note 3.*

This forced, artificial and unnatural situation, cannot however last long. Despotism and corruption universally produce decay. In losing her liberty and her principles, England has lost her real strength and her real glory, and exchanged them for the vain and momentary blaze of military fame and usurping empire; an empire not founded on the love and respect of nations, but on force; an empire which can only be supported by force, and must fall some day or other by the same means that raised it. She has already lost on the continent of Europe, that veneration which accompanied her name when it was always linked with the ideas of freedom, justice and sound policy. Like the statue of Nebuchadnezzar, the splendid edifice of her despotism is topped with gold, armed with brass and iron, but reposes on a foundation of sand and of clay. When founded only on a military force, however excellent, numerous and well appointed, every power is subject to the chances of fortune. An awful example has lately shown to the world in what an instant such an edifice may be crushed. And melancholy indeed will be the situation of England in such a case; her riches, her industry, her wealth and prosperity, her principles gone; her people impoverished and corrupted, lost to all delicacy, scruple, and morality, and accustomed to luxury and profusion. There is certainly an immense mass of information, of talent, of science and industry in England; but, as in France, all these qualities will have been exclusively applied to the service of the government, or all who join talent to honesty will have emigrated long before.

How much more respectable was the name of England, how much more solid her power, when with a small army, a navy scarcely equal to that of the Dutch, but a government strong by the support of a free, energetic, and enlightened people, she stood the bulwark of European liberty, against the ambition of Louis XIV. Under all her apparent greatness, she is really weaker in the love of her people for their country, in their moral courage and principle, than she was thirty years

ago. Thus, when the power of Napoleon stretched from Cadiz to Moscow, when a million of armed veterans stood at his command, and the treasures of Europe were at his disposal, France was really weaker, as was proved by the event, than when confined between Belgium and the Pyrenees, divided at home, without an army, without a navy, without finances, almost without a government; but animated by the young enthusiasm of hope, and the love of liberty.

But it must be remembered, that before the catastrophe of Moscow, the power of Napoleon had repeatedly crushed all opposition from the frontiers of Spain to those of Russia. It had risen to its acmè, just before its fall, and no human foresight could have fixed the moment of its decline. In the same way England can do incalculable mischief in the world before she falls.

It behoves America, for her own sake, for the sake of that world, where she stands the last and only asylum of liberty and of its friends and martyrs in every country; the sanctuary, where the flame of freedom is yet cherished and kept alive, to watch the progress and march of this great power, a power infinitely greater than that of Napoleon. The jealousy of England is chiefly directed against her. The English know right well, that their naval supremacy, on which their greatness depends, has ultimately more to fear from America, than from the rest of the world. They cannot reach to the sources of her prosperity, nor finally prevent her progress; it depends on causes which it is not in the power of England, nor even of man, to change; on her geographical position, her immense territory, her free government, and the enlightened character of her people. But they can stop it for a time; they can give it severe checks, and it behoves America to stand upon her guard.

To prove these positions, to show the necessity of organizing an efficient defensive force in America, and to point out some

of the principles on which such a force should be founded, such are the objects of the present Essay. I am aware that the very examples which I have just quoted, of France and of England, who both lost their liberties by over-augmenting that military force, which they had been obliged to raise for purposes of self-defence; I am aware that these examples may be turned against me, and that they have excited a very just and proper alarm in this free country. But that the situation of America is radically different from that of France or England, and that her military force, founded on different principles, and differently composed and organized, can never endanger her liberties, even when improved and strengthened so as to protect her effectually, I shall also endeavour to prove.

CHAPTER II.

Refutation of the popular opinion of the Americans concerning the late war—Military Analysis of that war, and of the principles on which it was conducted.

BEFORE we enter into a review of the defensive preparations which are become requisite in this country, to guard against the overgrown power of Britain, it will be necessary to correct some erroneous estimations of our actual strength, grounded on our success in the last war. "Whatever be the resources of England, we need not fear her;" such is the popular and common cry, "We fairly tried, and repelled them." But, if success, and even glorious success, in a noble cause, inspires us with too much presumption, and too great a confidence in our own means; if it makes us undervalue those of our enemies, it is sometimes more mischievous than a defeat.

Far be it from me to detract from the just fame of those brave soldiers, who so proudly supported the honour of the American flag. Their success was as glorious as it was unexpected by the rest of the world; it gave a great check to the presumption of Britain, and taught her to estimate at a higher rate, the means and character of America. But the military forces of Britain are improved, and are still improving since that time, and during that war she did not really exert them, as we shall prove by a short analysis. In hazarding, however, an opinion upon the military operations of the British and American armies, I necessarily speak with diffidence. Employed in active service in the distant wars of Europe, which engaged all my feelings and attention at the time, I cannot pretend to judge of the local and political interests which

may have swayed the governments and chiefs on either side. To those who were at a distance, and not in the secret, their movements appeared strange and unsystematical; but I can only pretend to ground my opinions upon public documents, and geographical positions.

When the American war broke out, the vast edifice of the French empire, that menaced the very existence of Britain, was beginning to give way, and the nations of Europe to rise in arms and assist in overturning it: they all required British subsidies, and all the energy and inspiration that Britain could give to them (4) *vide note 4*; her armies, gradually formed during the Spanish war, were poured in the peninsula, or in Belgium, to join in the contest; her navy, ruling from the Baltic to the Mediterranean, not only enforced a strict blockade round the French dominions, but formed a line of communication, to connect every attack, and convey troops, stores, and ammunition to every point at once, from Venice and Sicily, to Riga, Hamburgh, and Holland. When, under these circumstances, the resolution of the Americans was known, the British cabinet could scarcely be persuaded, that their long patience under insults and injuries of all kinds, was at length subdued, or that they would declare war upon Britain at the very moment in which the scale was turning in her favour. Her colonies in America were quite unprovided; a few battalions of regulars with the Canadian militia, whose fidelity wavered, were the only defence of her northern possessions, a few frigates blockaded the coast, from the station of Halifax, and pressed by closer and more important cares in Europe, she could spare but a very small proportion of her means to occupy the Americans at home. The inferiority of these forces obliged the English to stand on the defensive in Canada, whilst their frigates might operate some diversions on the coast of the United States. In this they were singularly assisted by the geographical character of that country, and the unwillingness with which the New England states appear to have entered in the contest.

The thinly scattered population of Canada is disseminated on a long and single line from Lake Huron along the shores of Erie, Ontario and the St. Lawrence, to a little distance below Quebec. That country has but one open communication with Britain, by the mouth of the last mentioned river, for though hereafter a communication may be opened with Hudson's Bay, the intervening country is at present desert, and no military operation could be directed on that line. That communication is covered by the colonies of Nova Scotia, Newfoundland, Isle Royale, Cape Breton, which serve as advanced barriers and *depots* to the more important province of Canada, and secured by its capital, Quebec, a regularly fortified city which stands at its only entry. All military means in men, arms, money, ammunition, stores of all kinds, must be conveyed through that city, and up the St. Lawrence to Montreal, before they can be distributed through the province.

From Montreal extends a double communication, the one along the St. Lawrence to the Ontario, the other up the Utawas; but I am ignorant how far the second, which is the great channel of the fur trade, may be used as a military communication with Lake Huron. It would certainly be a very fatiguing route for an army to ascend its numerous rapids, drawing or poling their boats all the way, against the current.

From this simple view, it is evident that the object of every invader of Canada should be to seize upon Quebec or Montreal, after which the rest of the province must fall of course. Quebec may be attacked by sailing up the St. Lawrence (this was the route pursued by Wolfe in 1759), or by descending that river from Montreal, or by a difficult march up the Kennebeck, and through the desert which separates the district of Maine from Lower Canada. This was the route which the brave and then honest Arnold traced with such glory and difficulty in 1775.

Montreal is still more immediately exposed to attack, either

by descending the St. Lawrence through the rapids, from Brownsville and Sacket's Harbour (this was the route of Gen. Wilkinson in 1813), or by descending from Lake Champlain directly on the island in which it is situated (this was the route of Lord Amherst in 1760, and of Montgomery in 1775). Montreal is not fortified, and Quebec is not calculated to make a long and serious defence against a regular attack, scientifically conducted.

From the same view, it is apparent, that the object of the possessors of Canada, unless they have a great superiority of forces, will always be to turn the direction of war out of that channel and transfer it to the lakes and back settlements of the Americans. Thus did the marquis of Montcalm, the ablest general that ever fought in America, operate in 1756 and 1757. The British forces in Canada were very insignificant in the last war. They would have been overwhelmed by a direct attack, on that plain and simple line of operations which is indicated by the nature of the country, the example of preceding generals, and the expedition planned by Washington at the very beginning of the revolutionary war; hostilities would have been closed on the northern frontier in a few weeks, and it would be worth comparing the probable expense both of blood and of treasure, which such an expedition might have cost, with what was expended in the three campaigns of 1812, 1813, and 1814.

Why this was not done, must have been from local and political reasons, of which a military writer cannot pretend to judge. Perhaps from the fear of hurting the prospects and interests of some states who apprehended that the St. Lawrence might afford a new channel for the products of the west; perhaps, from the fear of drawing on America the whole force of Britain, a part of the nation may have been averse to the conquest of Canada. It appears, besides, that America was as unprepared for the contest as Britain. After thirty years of peace, there existed no military establishments nor institutions

in that country; an army was hastily formed and organized at great expense, but generals, officers, men, and administrators were equally inexperienced. Before they could be armed, equipped, disciplined and put in motion, the government was obliged to rely upon the voluntary exertions of the people. Unfortunately the eastern states, whose local situation, numerous, hardy and active population, and well appointed militia, would have enabled them to have made the most effectual exertions on the most essential point, refused to co-operate in the cause of their countrymen, and the people of the western states, Pennsylvania, and New-York, were the only portion of the nation on whom the government could rely for prompt and voluntary aid. In consequence, the Americans were obliged to follow the lead of the enemy, and pursue the very march which he designated to them; attack his line at its very extremity, and proceed down step by step. It is evident that they must thereby have found him stronger and stronger at every post, and during so long and tedious a march through so wretched a country, afford him full time to receive all his reinforcements.

That to make them follow this course was the plan of the British commanders in Canada during the two first campaigns of 1812 and 1813, a short analysis of these campaigns will demonstrate. Although they were not men of distinguished reputation, their conduct of the war does credit to their military views and capacity. While they amused the American government with negotiations, their first step was to despatch Colonel Proctor, with a small corps of regulars, to raise the militia of Upper Canada and invade the territory of Michigan, whilst another corps was sent by Lake Huron to carry Michilimakinac. Fleets were equipped on the lakes, and all the N. W. Indians roused to arms; an operation premeditated and preconcerted long before, by intrigues with their chiefs and prophets, especially with the celebrated Tecumseh. The Americans, on their side, with an army raised in Ohio, invaded Upper Canada, but after displaying a great deal of use-

less and misdirected valour, were attacked at Detroit by an inferior force, and from the inconceivable weakness or cowardice of their chief, General Hull, laid down their arms and surrendered the whole territory of Michigan. The western states were laid open to the merciless ravages of a savage enemy. These misfortunes were at length redeemed by the bravery and good conduct of Generals Harrison, Cass, Johnson, Governor Shelby of Kentucky (whose patriotic devotion deserves to be eternally recorded by a grateful country); by the valour of the young and heroic Croghan, the naval victory of the immortal Perry, and the spirit of the people of the western states, who rose *en masse* to repel the invaders. The Americans recovered Michigan, obtained complete possession of Lake Erie, destroyed their Indian foes, conquered a portion of Upper Canada, and repelled the British to Lake Ontario and the Niagara frontier. These exploits were glorious, no doubt, but what did they cost, and what was their result. To protect against 2000 or 3000 British and Indians; a vast country, containing several hundred thousand souls, two armies were raised at the most extravagant expense (for in valuing the cost of a militia army, we should include the loss of time, of professional duties, the private costs of each man); one was annihilated, and all its stores, artillery, and ammunition, were lost; a fleet was built on the lakes. Two whole campaigns, from July, 1812, to November, 1813, were spent *in accomplishing these objects* imperfectly, for at the conclusion of the second campaign, Upper Canada was evacuated and Michilimakinac was not even recovered.

The British, on their side, by that able diversion, at the slightest possible trouble and expense, not only threw the whole western territory into a most dreadful state of alarm and confusion, and put the whole nation to a very great expense, but drew all the forces and attention of the Americans from the real and proper object of their attack to the most distant point. Their system was, what we call in the military language of Europe, an offensive defence. Unable to make

any powerful impression on the territory of an enemy much superior to them in strength and resources, their object was to make him waste that strength and exhaust those resources on points of no importance, and prevent him from closing with them in those where the contest would have been decided at once.

The state of New-York had also entered with activity in the war. From 1812, the American forces, collected on Niagara river, made, during the rest of the season, several very ill-directed attempts to land on the other side. The conduct of the militia gave an additional proof, if any were wanted, of the inefficiency of such troops to stand a whole campaign in the field. (1) In 1813 mutual surprises and small affairs of no importance occupied both parties till the month of November. But in those affairs the Americans were acquiring experience and steadiness, and displayed a great deal of firmness and valour in the combats of York, Sacket's Harbour, Stony-Creek, &c. All this valour was however uselessly displayed, and the expenditure in men and money, the efforts made by land and water to obtain possession of the lakes and rivers of Upper Canada, were thrown away in a wrong direction. For what purpose the Americans showed themselves so eager to obtain possession of that Niagara frontier during the whole war, is difficult to guess. It secured no military advantages whatsoever, and without the possession of the lake, did not even cover New-York against invasion. The British very willingly and properly endeavoured to fix their attention upon it, and disputed it over and over with the greatest animosity and perseverance. It is to be remarked, that both in 1813 and 1814 the Americans evacuated the British lines voluntarily, after obtaining possession of them at a great cost of blood and treasure.

In November, 1813, General Wilkinson invaded Lower

(1) Vide on that subject, Washington's letters, in every page of them, especially in 1775 and 1776.

Canada. I cannot pretend to judge of the causes from whence his two expeditions failed in 1813 and 1814; his administrative service must have been very imperfectly organized, and have delayed and embarrassed all his movements. But these expeditions were certainly the only offensive operations undertaken during the whole war with a proper military object in view. The possession of Lower Canada secures the possession of Upper Canada; but after the much more difficult conquest of Upper Canada, Lower Canada remains to be subdued. The forces which had fought on the Detroit and Niagara frontiers were collected for that expedition, and afterwards divided between Plattsburg and Niagara.

To conclude the abstract of these two campaigns, we shall observe, that in the south the Indians were roused to arms, through the connivance of the Spanish government of Florida and the intrigues of the British, with the view of alarming the western states, keeping them occupied at home, and putting them to as much trouble and expense on their southern frontier, as they had been put to on their northern frontier in the beginning of the war. This diversion proved useful to America in the end, as during the arduous struggle which it occasioned, that army and that general, whose untutored but vigorous genius decided the last great victory of the Americans, acquired those habits of patience and discipline which secured it.

The naval contests of the two nations do not properly enter into my subject. I shall only observe, that the British government had greatly undervalued the naval means of America, and the courage and talents of her officers and seamen. Their force was in consequence insufficient for blockading the coast, and Hull, Rogers, Porter, Decatur, Jones, &c. were crowned with glory at the very outset of the war. Animated by their example, the American privateers swarmed over the ocean, their flag was victorious on every sea, and they did real and great mischief to the trade of England, even on her own proud coasts. The fame of the

American navy was ably supported during the whole war, by the brave and unfortunate Lawrence, and a crowd of other heroes. In 1813 the British began to be aware of the importance of the contest; they blockaded the American harbours, but could not prevent our privateers from frequently slipping out and severely annoying their trade. A small armament sailed up the Chesapeak, and its piratical depredations will long be remembered in this country. They put the Americans to great trouble and expense, in guarding the long and indented coast of that bay, where every point is equally exposed to the attack of a central enemy. But the brutality and ferocity of their conduct at Hampton, Elktown, and Havre de Grace, forms a strong contrast with the generous and humane spirit which was uniformly displayed by the Americans.

At the close of 1814, the war took another character. The fall of Napoleon enabled England to dispose of her naval and military forces, and turn her attention to America. But it must be observed, that to restore her finances, her trade and manufactures, to put some order in her administration, to guard against popular discontents and satisfy the popular clamour, now as loud against war as it was formerly in its favour, a universal peace, at least for some time, was become necessary. In fact, negotiations had already begun with America for that purpose, and the congress of Ghent was opened in August to settle its conditions. As both parties had agreed to waive the discussion of some delicate points, no material difficulty could arise in the course of these debates.

But the trade of England had suffered severely, her arms had received some checks, her naval character was diminished, and she wished, before the conclusion of peace, to strike some severe blows, retrieve the credit of the war, terrify the Americans, by a display of the mischief which she might do, chastise what she termed their presumption, and, perhaps, force upon

them some harder conditions of peace. The British were not aware that, during the war, several brave and able generals had been formed on the American side, that the troops of the republic had acquired a great deal of steadiness and discipline: they undervalued the strength of their enemy, an error which will probably not be repeated. At the same time, by a very impolitic measure, they extended their hostilities to the New England states, which they had cautiously spared till that moment. By these ill-timed measures, they began to offend even their partisans, and more signal insults soon roused against them every American spirit, and destroyed, it is hoped for ever, their influence on any part of the American population.

From thirty to forty thousand men, between May and October, were successively despatched and collected in Halifax, Canada, Bermuda, Jamaica, &c. to invade the most distant points of the American territory. There was no concert between these expeditions, they had no views of settlement or conquest; their only object was to plunder, ravage, and destroy. In July, hostilities recommenced with fresh vigour on the Niagara frontier; the forces on both sides varied between 2000 and 5000 men, but if the contest appears unimportant, both from the smallness of these forces, and the little possible result of any operations in that quarter, it was highly creditable to the spirit of the American troops, and of their brave commanders, Brown, Scott, M'Ree, Ripley, Porter, Miller, Jessup, &c. who displayed equal energy and fortitude in the battles of Chippeway, Niagara, and the brilliant sortie of Fort Erie, which concluded the campaign. At the close of the season, both parties resumed their former stations, and the Americans again evacuated the British territory.

In September, the mass of the British forces in Canada, amounting to 14000 men, descended on Plattsburg: probably with the view of destroying the military stores of the Americans, and ravaging the country as far as Albany; for as no simultaneous attack was directed against New-York, it does not

appear that they intended to pursue the course in which Burgoyne lost his army, in 1777. Whatever were these views, they were defeated by the glorious victory of Commodore Macdonough, and the brave resistance of General Macomb. The total destruction of their fleet rendered their farther progress impracticable, and they retreated in confusion and disorder before a handful of militia.

In August, the small armament that had committed with impunity such ravages in the Chesapeake, was reinforced by Admiral Cochrane, and General Ross; the defeat of the Americans, at Bladensburgh, afforded a new example of the insufficiency of militia to stand in the field against the manœuvres of regular troops; the destruction of Washington was a wanton insult, which rendered more service to the American cause than a victory. The attack on Baltimore could have no object but plunder and devastation, and its failure closed the war in that quarter. The troops employed in that disgraceful service, were then directed to co-operate in the grand and final attack on New-Orleans.

That the British, by these expeditions, only intended to chastise the Americans before the conclusion of peace, by the destruction of their chief cities, and the devastation of their private property, is proved by the fact, that peace was actually signed at Ghent, on the 24th December, 1814, only one day after the first attack of General Jackson on the British vanguard, and without any reference to the New-Orleans expedition. This expedition was fortunately as ill conducted in its execution, as cruel and infamous in its purpose. The point of attack was ill selected; an overwhelming force moved forwards with such slow, cautious, and timid steps, that time was given for the Americans to make their preparations. The decided, intrepid character of the American general, his good selection of the point of defence, the judgment he showed in throwing up intrenchments before his inexperienced troops, the skill of the cannoneers, the patient, cool, and firm valour of

the Tennessee volunteers, formed in a laborious and severe warfare with the Indians, the patriotic bravery and enthusiasm of the less experienced militia, the sure aim of the rifles, and the presumption of the enemy, whose last attack was as rash as his former movements had been tedious and dilatory, did the rest. Above all, that ruling providence, which, on this occasion, protected the cause of freedom and justice, against rapine and violence, decided the victory, and closed the eventful history of the war, by this signal triumph.

From the review of this whole war, it cannot be too strongly insisted upon—

1st. That during the campaigns of 1812, 1813, and the beginning of 1814, the English, who had very few forces in America, and could not spare more, endeavoured only to harass the Americans on as many points as possible, and make them expend their blood and treasure on objects of no importance.

2d. That when they seriously took the offensive in 1814, they had already decided on a peace, which was necessary to them, and only aimed at deterring the Americans from another contest, by first making them feel the evils of war. But they took no measures for making a deep or permanent impression on the country.

3d. That they were not aware of the excellent quality of the American navy, of the improvements which had taken place in their army during the war, nor of the spirit and resources of the country in general, and had formed an erroneous and exaggerated idea of its party divisions. Their last expeditions were generally ill planned and ill conducted.

4th. That their efforts in the last war are therefore not to be taken as the measure of their strength. They know at present, they feel the importance of America; they are aware

that she is rapidly growing their rival on the seas, and supplanting them with still greater advantages in commerce. They are aware that in a few years it will be out of their power to put her down. We may depend, therefore, that with a better knowledge of the country and of its resources, with an improved army and a much greater display of forces, as soon as they are freed from embarrassments at home, and at liberty to exert all their means, they will seize the first occasion, and leave nothing untried to put a stop to the progress of America, wound her in the most vital parts, and crush her rising prosperity. That such an object, however painful it may be to the proud feelings of a patriot to acknowledge its practicability, however painful to a philosopher and philanthropist to think that it could even be conceived, that such an object has been tried, is still pursued, and is not absolutely unattainable, we shall endeavour to prove in the next chapter. And whether, in such a case, it will be prudent in America to remain in the same unguarded state in which she was at the beginning of the last war, when England had no means to assail her, we will leave to the judgment of every reflecting American.

CHAPTER III

Development of the principles on which the next contest between England and America will probably be conducted, and of the chief objects which Britain will then seek to accomplish.

THE result of the last war appears to have lulled the Americans into a state of the most complete security and confidence. The general cry of Britain was, strengthen the government and the army; we have seen what it has led to in that country. The popular cry in America seems to be, weaken the government and disband the army. Whether the reverse of wrong is right, whether the military establishment of the United States can endanger the public liberty, or whether the principle of economy, and the jealousy which the individual states entertain of the patronage and power of the central government, may not be carried so far as to endanger that public liberty and the general safety, we shall examine in another chapter. We shall content ourselves here with observing, that the army which had been raised and formed in the last war has been disbanded, and that a constant outcry has been kept up ever since for reducing and even disbanding entirely the small regular force which had been retained.

England on her side has been silently and gradually improving her military knowledge and her military establishments. Her unexpected reverses in the last war have turned her most serious attention towards America. The other powers of Europe may fear her aggrandizement, but they fear still more the principles of republicanism, that have still

an asylum in this country. As long as Britain maintains her present artificial and unnatural power, she must view America as her most dangerous enemy. She is aware that she undervalued its forces in the last war, and that her own expeditions were ill planned and ill conducted. Since the peace, a number of British military and naval officers and engineers have visited our frontiers in every direction, and under various pretexts. The fact is notorious; some of them I have met, and some of their statistical and military notes I have accidentally seen. Whether sent by their government or impelled by their own private zeal, to *reconnoitre* a country where they soon expect to be employed, the consequences are the same, and I am persuaded that there exists at this day in the British war office, as complete a series of military memoirs on America as at Washington; perhaps more complete, if we do not preserve with care such documents and materials as we possess. That all that information and all those means will be directed against us on the first occasion, we cannot doubt. The last war was defensive on the part of England; she had no object in view; the next will be offensive, and with a view to break down the resources of America, so as to preclude the possibility of her entering again in competition with the power of Britain—her blows will be struck home and deep.

Her first object will be to bring about, if possible, a separation of the states, and to break that union which constitutes their strength and their greatness—that union on which the character and the standing of America depend. There is scarcely an individual, there is certainly no party amongst us where the mass of individuals would not shudder at the bare possibility of that separation, and of the consequent and infallible loss of our republican institutions and national independence. But all are not equally aware how the crafty and ambitious government of Britain, by heating their passions, fomenting their party feuds and divisions, encouraging their local feelings and interests, and entertaining their jealousy of

the federal administration, might gradually accustom their minds to the idea. Many there are, who think it hard that the local interests of their states should be sacrificed for general measures, which perhaps they disapprove, and which may be very hurtful to those very interests; many who think the separate means of such great portions of the empire as the eastern or western states, amply sufficient for their wants, wishes and defence; many, who young, ambitious and aspiring, despair of playing a part on the grand scene of the general union, and expect a freer sphere of action in these smaller republics. These people do not aim at a separation, they only wish to augment the individual independence and influence of their states. They are not aware, that in declaiming against the danger of usurpation at home, in weakening the central government, in gradually dissolving the connecting links of feeling and interest between the different parts of the union, they are unconsciously aiding by that narrow and selfish policy, the ambitious designs of England. *Divide et impera*, was ever the motto of all usurpers on the rights of a free people, and more especially of England. If we could doubt it in this country, let us remember her policy in Europe, in France, in India; let us remember the tale of Henry's negotiations, in time of peace, in our own country, and if any American could forget it, it should be repeated to him daily, taught to every infant with his earliest lessons, and insisted upon in every assembly of the people, in every discussion of every party.

The fatal moment which divides the feelings and the interests of the people of America, is the last of their liberty here, of their consequence abroad, of their republican institutions, and of all their glorious results, plenty, freedom, and happiness at home, and an envied and respectable name in the rest of the world. Whatever dangers our liberties may run from one good army, organized and directed by a firm general government, and knowing no enemies but the foreign invaders of the states, there is no doubt that as soon as two-rival-armies shall

exist in America, with all the bitter rancour of neighbouring enmity, the executive and the military will be strengthened on both sides, until, by conquest or usurpation, one or two military monarchies be erected. This is confirmed by the universal experience of history: in that case, England will be freed from any danger of competition from America, for that country will have lost the principle of its strength. With such an object before them, we need not doubt that the British government will neglect nothing to bring it about; they will foment our divisions, manage the interests of some states, and bear all their forces upon others, to crush them.

The second object of England will be to destroy those naval and military establishments, which although yet in their infancy, bid fair hereafter to rival those of Britain; to inflict deep and deadly wounds on those points where the wealth and industry of the nation are concentrating; to ruin its trade, destroy its shipping, and put the people to such trouble and expense, as besides loading them with taxes and making them suffer all the ills of war, may deter them from ever renewing a contest with Great Britain, and disgust them perhaps with their government and institutions. The English have the example of the most free and celebrated nations of antiquity, for believing that in a democracy the executive government is usually held responsible for all the sufferings and misfortunes of the people.

It is not likely that, in order to accomplish this, they will venture any serious invasion into the interior of the continent. In the first place, however excellent and disciplined the troops employed on such a service might be, they would infallibly be destroyed in detail, and the population is so disseminated in small towns, villages, farms and hamlets, that no particular point would be worth the loss and expense of such an expedition. The militia, in that case, in every wood, marsh and passage, behind every hedge and every wall, with their known dexterity in sharp-shooting, would be irresistibly

destructive. In Canada, from the same reasons, they would probably adopt the same course of offensive defence, which they did in the last war; transfer the scene of hostilities to the back countries; rouse the Indians to an active diversion against the western states, and send a few auxiliaries by water, to support and lead them; harass with savage warfare the back parts of New-York, Pennsylvania, Ohio, Illinois, Michigan, and thus prevent the inhabitants of the interior from supporting those of the coast; renew a naval contest on the lakes, to divide the attention and the forces of the Americans, and put them to a useless and extravagant expense. They will consider themselves as gainers thereby, whatever be the result of that unimportant contest, in which victory will not even secure the conquest of Canada. Such may be their course in those quarters, but it is not there that they can expect to strike any deep or decisive blow.

It is on the coast, where the population, the naval and military establishments, the wealth, the trade and industry of the people are concentrated, that such blows will be struck. What was the course pursued in the Peninsula by the Duke of Wellington? Occupying the impregnable position of Aljubarota, he concentrated behind it all his means, formed his army and organized its service; in front his intrenchments defied all the efforts of the enemy; behind, lay the city and harbour of Lisbon, open to all the supplies and reinforcements he required. The British navy ruled the sea, and gave him the means of attacking whatever point he pleased; the French were obliged to guard themselves on every side, and he waited, in secure patience, for any fault which they might commit, or any favourable occasion which might present itself.

Thus on the most central and important points of our coast, on those points which cover and connect our great land or water communications, our large cities, &c. if they should find some spots, so favourably disposed by nature, that in a short time, and at a small expense, they may be fortified and isolated from

the continent, an overwhelming combination of naval and military forces will be directed to occupy them, and when organized on a footing of permanent defence, they will be held as regular stations and places of refreshment for the troops and navy, grand depositories of all means of hostility, arms, stores, ammunition, &c. and of all the plunder which will be collected in the country, centres of intrigue, bribery and conspiracy, &c. Three or four posts of this kind on the coast of the United States, connected with the stations of Halifax, Bermuda, Jamaica, &c. would form a strong and powerful blockading line round America. If such a blockade required 40 sail of the line and as many frigates, England could spare them, and could not possibly employ them on a more important service. Nor is this all. From these centres of destruction, as from the focus of so many volcanoes, their predatory parties will successively assail our arsenals and naval and military establishments, our trading and manufacturing cities, combine their attacks, shoot out in every direction, carry their ravages on every unguarded spot, ascend every river and every creek, and force the whole population to remain in a constant state of anxiety and alarm, always armed and always marching from one point to another. They will be free to select their points of attack, and to retire to their boats, wherever they meet with resistance, or wherever they have accomplished their object.

Such situations exist in every country, if the invading generals and engineers have knowledge and talent to find them out. That in the revolutionary war, the English did not succeed in such attempts, is only a proof of the state of infancy in which the military art was yet in England, at that period. Cornwallis, Lord Howe, and several of their most celebrated chiefs, committed the grossest blunders on such occasions. But if the enemy pursue that course in the next war, I shall leave to the judgment of every candid and well informed American, whether our navy is yet strong enough to oppose them, and what effect would such a harassing system

of warfare have on the patience and spirit of the militia. Those who know how badly it is organized and equipped, those who are acquainted with the confusion and disorder of its temporary administration, and how unfit it must be, from its very nature and composition, for any long or permanent service, will be able to conceive, but not to calculate, the enormous trouble and expense which would thus be occasioned, and how soon the people would grow weary of the war and of their government. Was not this the case in the last war. We undertook it to secure some points which we left undecided at its close, because a great portion of our people refused to co-operate in it any longer, and because a division of our union was already apprehended in consequence. The same reasons still exist on our side, and stronger reasons on the side of Britain, for renewing another contest.

If we endeavour to find out the chief points of attack, and examine for that purpose the military qualities of the vast extent of our coasts, we shall observe that, by its geographical and military nature, as well as by the political connexions, interests and habits of its population, it is divided, from Maine to Florida, in three great districts, the northern, the southern and the middle or central. A fourth division is formed by the coast of the gulf of Mexico, and the mouths of the Alabama, Mobile and vast Mississippi, which belongs to our western territory. By their military properties the southern shores of New-England, from Cape Cod to New-York, should however be attached to the middle district, whilst, by their political character and connexions, they belong to the northern states.

If we examine the coast of New-England from Nova Scotia to Cape Cod, it will appear, at the first view, that from the nature of the dark, foggy and stormy sea, which bathes it, from its indented figure, covered with small islands, and intersected by ports, creeks, harbours and mouths of rivers, &c. it can never be subjected to a strict blockade. From the enterprising character and maritime habits of the people, they are admi-

rably fitted to harass the trade of Britain by their numerous privateers, who will always find moments for slipping in and out, on so extended, and so indented a coast. From the numerous, concentrated, high-spirited, well armed and organized population of New-England, where domestic slavery has not created a class of domestic enemies; from the nature of the country, mountainous, woody, and barren, intersected with streams, rocks, and ravines, mill-sites and natural obstacles of all kinds; from the risk which would be run and the little profit which would be reaped, by invading a country where every one is active and industrious, but no one opulent, it is not likely that New-England will be seriously attacked. Besides, whether well founded or not, an idea is generally entertained in Britain, that our eastern states are favourable to the English interest, disgusted with the spirit and measures of the American government, fearful that their influence in the union will decline as the western states grow to power and preponderance, and consequently less averse from the idea of a separation and from that of forming an independent republic under the protection of Britain, than any other part of the union. From the combination of all these motives, military and political, it is unlikely that the English will direct any severe aggressions against that quarter of America. They will rather manage its interest and foment its discontents.

However, if New-England takes a more manly and patriotic and wiser stand, and if Rhode Island be selected for the seat of a great national establishment and naval depot, as has been announced, it is probable that they will endeavour to occupy that noble station, whose advantages were appreciated even at the time of the revolutionary war. The importance of which that position would be to them in a military point of view we shall develop further. In a political point of view it would be invaluable as a centre of intrigue, smuggling, conspiracy, &c. provided it could be guarded chiefly by a naval force, and would not require too great a proportion of land troops to protect it, a point which should be ascertained by able engineers. By sea a considerable naval force will be re-

quired to blockade the coast of New-England, notwithstanding which the American privateers will always find means to escape, and retaliate severely for any injury which they may receive. Boston is the only place worth being attacked by a large expedition.

2d. In the southern states, from the Chesapeak to the extremest point of Florida, other motives will probably deter the British from any considerable or permanent invasion; the deadliness of the climate to foreign troops, on that low, sandy and marshy coast; the want of good naval stations, the want of grand marking points of attack, and the dispersed state of the agricultural population. Some islands on the coast may be occupied as deposits of plunder; some light frigates and flying parties keep the militia in movement and alarm; plantations be destroyed; the negroes excited to rise, and perhaps Charleston or Savannah menaced for the sake of plunder, but no serious attempt will be made there.

3d. The middle coast between Cape Cod and Cape Fear, will be the scene of such attempts. That coast, which is so admirably adapted by nature to become the seat of a great maritime power, forms a long sweeping curve in the very centre of the American empire, where four deep bays, plunging in the heart of the country, convey to its inland territories the productions of the exterior. On these are concentrated the mass of the wealth, of the population and industry of America; on these are situated her chief national establishments. Those points, which will certainly attract all the efforts and forces of the enemy, are the bay of Rhode Island, of New-York, the Delaware, and the Chesapeak. ③

For a mere destructive and plundering expedition, New-York is the most important object in America; and if an enemy once occupies the heights of Brooklyn, that place is untenable; for a great commercial city, when bombs, bullets and rockets can reach its ships and stores, cannot be expected to sacrifice them; but New-York requires an army

to keep it, which might be better employed. This was the chief error of the British in the revolutionary war. New-York may therefore be plundered or destroyed, but will not be kept as a military station, unless the eastern states should again adopt the same unwise and unpatriotic course which they did in the last war; and separate their interests from those of America. In that case, it is not impossible that the plans of Burgoyne may be revived, and expeditions directed in concert from Canada and Long Island, to conquer the regions bordering on the Hudson, and thus permanently divide the republic in two parts. At the close of the revolutionary war, England proposed to acknowledge the independence of the other states, on condition that she might keep New-York.

Philadelphia, though a great object of plunder, is even more unfit for a military and naval station; its inland situation and little defensibility preclude the idea. Besides, the Hudson and Delaware bays, situated in the centre and bottom of the great curve which I have described, present no proper points of occupation, and would not serve as blockading stations.

It is on the two extremities of this line, on the very points which the American government has selected as the seat of her naval establishments, on the mouth of the Chesapeak bay, and on Rhode Island, that the efforts of the British will be directed. It is there, if they can find proper points, that they will fix permanent military and naval stations, such as I have described above, and follow the course of hostilities which I have mentioned, combine from thence their movements all along the coast, and connect them with those of the stations of Halifax and Bermuda.

4th. The western states, forming a world in themselves, have little immediately to fear or to hope from Britain; and she has no influence amongst them. The feeble hostilities of the Indians, those which she may direct against them by the

extremity of Canada, any one of these states is strong enough to repel; but from their singular topography, the whole immensity of regions, watered by the Mississippi, Ohio, Missouri, Arkansaw, and all their tributaries, have but one natural *emporium*, New-Orleans. The importance of that post, the key of the western world, has been already perceived by Britain. I have hinted before, that the point of attack was ill selected by the British chiefs in the last war: without any particular knowledge of the local topography of the neighbourhood, I had judged so from a simple view of the map. I have since had the satisfaction of hearing my opinion confirmed by indisputable authority. But if there should be any truth in the report that the Spanish government has proposed to cede Cuba to England, or if she should seize that colony under any pretext, she need not attack New-Orleans a second time. The possession of Havana would secure to her the dominion of the gulf of Mexico, and close it so effectually, that no ship could possibly pass the channel of Bahama; without her permission. And by intercepting from Canada, the northern communications of the western states, she might lay them under a complete blockade. She will endeavour to prevent them, by small diversions and Indian wars, from aiding their Atlantic brethren. But we hope that this narrow and selfish policy will never be that of our brave backwoodsmen. Although behind their forests, they might be secure for the present; although the ruin of the maritime states might strengthen and enrich them by a vast flood of emigration, yet they would eventually fall into dependence on that power, which would hold the coasts, and blockade them at will. The consequences of a separation we have already shown.

By holding several posts of that nature, England will prevent the different parts of the union from assisting each other; by occupying Rhode Island, she will menace an extent of country, that will oblige us to maintain 100,000 men of militia under arms to guard it; a similar station on the Chesapeak would have a similar effect; Havana would immediately menace New-Orleans, and completely blockade our southern

shores; and, combined with the other stations to Halifax, effectually close up the whole of our coasts to all foreign trade.

If the British find all these important and essential points guarded by the Americans, and put in a state of defence; if they find them prepared against an invasion, they will probably confine their views to harassing them and putting them to trouble and expence. By displaying on our coast a naval force calculated to overwhelm all opposition, sending detachments to hover round it, affecting now and then to disembark and form an establishment, till they have roused the country and forced the militia to assemble and march in haste, then re-embarking and appearing in another point with the same purpose, they may fatigue our people with perpetual service, and force us for every million which they advance, to expend ten times as much and more. This, however, is but a small consideration if we remain true to ourselves, constant and united. The Americans should never forget that the object of Britain, in every contest with them, will be to divide and destroy. By repeated destruction, but especially by dividing this noble republic and setting its component parts at variance with each other, and by these arts alone, can she expect to stop its growth, and prevent her own impending ruin. If America was once put down, her tyranny and monopoly on the seas would meet with no rival, and by that monopoly she would extend her haughty and heavy empire over the rest of the world. Her pride was deeply hurt by the success of the American navy; it was touching her in her vital parts. We may therefore count that on the next occasion she will endeavour utterly to destroy it; to ruin all its establishments and all our chief seaports; to harass the whole of our sea coast, unless some parts be designedly favoured, to create a division of interests between our northern, southern, and western states; to occupy some military posts on those central points, which would be of a great deal more value to her than the whole barren and expensive province of Canada, and that to accomplish this she will spare neither ships,

money, troops, arms and intrigues, bribes, promises and conspiracies, nor any means whatsoever; that her expeditions will be more formidable by their numbers and quality, better combined and directed than in the last war; that her troops and especially her artillery and engineers, will be found greatly improved, and that she is better acquainted with the resources and localities of America, and no longer entertains such an overweening opinion of her own superiority, nor such a contempt for the means of her enemy. Whether, with the prospect of such an attack before us, our present confidence and security be well founded; whether our present means of defence be sufficient to withstand it, or whether prudence does not imperiously call upon us to organize them on a more effective footing, shall be the subject of another chapter.

CHAPTER IV.

Investigation of the chief objections which are made to the augmentation and improvement of our Military Establishments. Insufficiency of the Navy and Militia alone for the purposes of national defence.

FROM this brief analysis of the changes which the government of Great Britain, and the character of her civil and military institutions, have undergone, in the course of her late contests with France; from the improvement of her forces, and the nature of her grasping and envious policy, of that policy which can only support her present overgrown and artificial power, by the depression and debasement of every rising nation; from the review of her conduct in the last war, which shows that what she has done must not be taken as a sample of all that she can and will do; from the abstract of the possible and probable measures which she may take to humble and even destroy the strength of America on the next occasion, we might trust that our people would be awake to the necessity of preparing and consolidating their means of defence in the present period of peace, and whilst England is yet involved in financial difficulties. As nevertheless there seems to prevail amongst a portion of the nation and some of our statesmen, apprehensions concerning the warlike spirit growing in America, fears that our military force might be employed on some future day to subvert those liberties which they have so bravely defended, and consequently a desire of reducing it to the smallest and most insignificant scale, and a dislike to apply any considerable portion of the public revenue to military works and preparations; as those feelings natural in a free country are plausibly grounded on the experience of past ages, and established

political axioms, it will be proper to examine and discuss them before we proceed any farther.

The chief arguments used on the occasion, and I do not desire to weaken them in the exposition, are these: Wherever a free people, either with a view to aggrandizement and conquest, or even for the purpose of self-defence, have given too much strength to their executive and their military force, their liberties have been uniformly subverted. Such was the fate of the Greek republics in antiquity, and of the Italian commonwealths in the middle ages, such was formerly the fate of Rome, and such of France and of England in modern days. Standing armies are heterogeneous elements in the constitution of a free government, exclusively confined to the profession of arms, isolated from the people, and subject to a discipline, of which absolute authority in the chiefs and passive obedience in the subalterns are the fundamental principles. The natural independence of soldiers must be blunted by these habits, and they must necessarily contract a certain disregard for civil virtues and those civil laws and authorities with which they have so little connexion. To these cogent reasons others are added, equally forcible, and drawn from the peculiar constitution of America. Formed by a confederation of independent republics, the central government is to each of them an object of jealousy, and they vigilantly watch its measures and resist any enlargement of its powers. This is the great palladium of our liberties, and that vigilance should never be intermitted. Our constitution, our representation, are so essentially democratic, that no course of measures can be pursued for any time, or to any extent by the government, without the consent and approbation of a majority of the people. They are daily investigated, and by the frequency of our elections are in fact directed, as they should be, by the public will. Economy should therefore be the first principle of a government where the people really tax themselves, and are not taxed by a delusive representation as in England; nor will they impose on

themselves any burden, unless it be demonstrated to them that it is indispensable for their safety or benefit. Despotie governments alone can form great and magnificent establishments, and these in their turn support and strengthen despotism. A standing army may be necessary to such governments for the purposes of invasion and foreign conquest, but these have always been ruinous to a republic, and our constitution only allows of a defensive system, for which a naval force, which is never dangerous to liberty, and our militia, the people themselves, defending their own homes and properties, and their own rights, are amply sufficient. We should stand ourselves the belwark of our country, we should fight our own battles, and never surrender our arms into the hands of any subsidized force whatsoever; wherever the people did so they were enslaved, and they deserved to be enslaved.

In reply to these objections, I shall begin by observing that the example of other nations is not applicable to us; our constitution, the nature of our territory and of our people, have no parallel in history. That people are universally enlightened, universally republican, and universally armed; twenty state governments, each possessed of independent forces, watch the general government, and the members of the legislature are more anxious for popularity in their respective states, than for credit with an administration which has few incentives to offer to private ambition. Neither do we require a large force; we can never be assailed by overwhelming numbers, from our distant and isolated situation, and from the immense expense of transmarine expeditions; it is the quality, and not the quantity of our enemies' troops which can render them dangerous. The immense extent of our coasts precludes the possibility of their being defended entirely by the regular army; and all those nations who were subdued by their own soldiers, had first given up the use of arms. But from the very nature of things, our defence must ultimately depend upon our militia. Far be it from us, to propose disarming the nation; still farther, to render America

a military power; we deprecate the spirit of conquest, we deprecate the creation of a great military establishment, possessing a separate interest and influence in the country, isolated from its political principles, solely subservient to any executive whatsoever, and strong enough to be turned against the people. A defensive system is the only one which our constitution allows; but it should be sufficient, effective, and well organized. The only point, therefore, which we have to examine is, whether the navy and militia are sufficient for that purpose, and no argument can be drawn from the dangers which our liberties may run from a standing army, if our defence requires one; for supposing even that it could never be formed on republican principles, nor animated by patriotic feelings, which we hope and believe is far from being the case, it would be but a poor compliment to the spirit of America, to assert that the liberties of a million of armed citizens would run any danger from a few thousand regulars.

It would be superfluous to go over those arguments, which were advanced by Hamilton, by Madison, by all the sages of the revolution, at the glorious period when the American constitution was discussed, and finally adopted, by the most consummate wisdom that ever ruled the affairs of men; those arguments, confirmed by so many years of unparalleled prosperity, demonstrate that, under our institutions, the liberty of America can run no risk from the power of its elective central government. But if the object of that government be to give strength and dignity to the nation abroad, and union at home, it must be liberally provided with all the necessary means. Let these be inspected as jealously, as closely, as the nature of our democratic constitution requires; but they should exist, it is the interest of every state and individual that they should. Our liberties, I fear, run more danger from the weakness than from the strength of the federal government; if it cannot afford prompt and efficient protection to every part of the union in time of war, if one will, one administration, one

uniform organization does not pervade the whole of our defensive system; if the several great divisions of our country separate their interests, and rely only on their individual means for their protection, not only those means will prove insufficient, and their defence unconnected and unsystematical, against an enemy attacking them with all the contrary advantages; but they will afford to that enemy an occasion of bringing about, by his intrigues, his grand object, the division of America. The connecting link, the central government, cannot be too much strengthened; if once it is broken, all the evils deprecated by our jealousy will be felt with tenfold intensity. Our independent governments, suspicious of each other, will vie in every military establishment, and in strengthening their executives, until they will all be turned into military despotisms. The hopes of mankind, that a new era of liberal and enlightened freedom was going to commence, these hopes would be crushed, the rising splendour of the genius of American liberty, which dawned on a hailing and admiring world, with such pure and bright glory, accompanied by the prayers and wishes of all good men, would set in darkness and in disappointment; the same disgusting, bloody, and uniform track in which the old world has marched, from mutual jealousies, wars, and usurpations, to despotism and revolution, would again be traced by the new, and the same dark and ensanguined hue would stain the white and unsullied pureness of her robe of freedom.

Economy should undoubtedly be one of the first principles of every republican administration, but economy does not consist in avoiding every expense till necessity imperiously calls for it; in such cases, parsimony at one time is always followed by extravagant profusion at another. If we do not prepare our defensive means with leisure, order and deliberation in time of peace, we must create them with sudden haste and confusion, and at immense expense, at the moment of war, when they should already be in active motion. Moreover, they will necessarily be insufficient and badly organized. The

experience of the last war should at least have taught us so much. If economy was the paramount, the only object of government, that same experience should have taught us, that from various reasons, which shall be further developed, no service is more expensive as well as inefficient than that of the militia. However startling the expense of great military establishments, such as those of France or England, Russia or Austria, a little insight into the details of their administration will prove, that the force of a great nation cannot possibly be organized or exerted in a cheaper manner. Economy is with great military powers the first principle, for every economy enables them to augment their force. But we should be swayed by higher considerations. (5) *vide note 5.*

Those who are most unwilling to apply any portion of the public revenue to the army, are generally liberal to the navy. And it is a very popular opinion, that by strengthening it sufficiently, we might dispense with other forces. It would be the height of presumption in an officer, who has seen no sea service, to venture a positive opinion on this subject, and we all know that America contains all the elements of a naval establishment, and those of the most perfect kind; her coasts are admirably adapted for creating a naval power; her immense commerce is an inexhaustible nursery of sailors, and her seamen are perhaps the hardiest, the most skilful and intrepid in the world. But popular as our navy universally and justly is, covered with glory as it was in the last war, it is yet in its infancy. (6) *vide note 6.* I would refer its greatest admirers to Rogers, to Porter and Decatur, to be informed whether it can cope with all the forces which Britain can send against us; whether it can repel every attack directed on our extensive coasts; how long it must be, and what immense expense must be incurred, before its establishments can rival those of Britain, Woolwich, Deptford, Chatham, Portsmouth, Plymouth, &c. I believe that our few ships will always beat an equal British force. But who can doubt, that if England was at peace with the rest of the world, she

might pour from these great establishments, such an overwhelming power as would effectually destroy, or at least blockade our navy; and on the first occasion, she will certainly strain every nerve to ruin and eradicate every trace of our arsenals, navy yards, and all marine establishments. Instead of protecting the nation, they will for a long time require to be protected; besides, it should be observed, that by the possession of Canada, and still more, if she takes possession of Cuba, England should not only be considered as a distant naval power, but as a neighbouring enemy; her means of aggression are organized, not only in England, but in the neighbourhood of America.

From all these reasons, the objections to the military establishment of the United States are reducible to this single question: is the militia sufficient for their defence? That defence, for the reasons which we have mentioned above, must ultimately and chiefly devolve upon it, but can it stand alone the fatigues of a long and protracted campaign; can it stand the attack of an experienced and disciplined enemy, directed by chiefs who have made the art of war their sole and particular study, without being supported by a force of similar nature, and led by chiefs of the same character. How often, during the revolutionary war and during the last war, has experience taught us that they cannot. I might content myself with quoting the repeated testimony of Washington to that purpose; but the subject deserves to be fully investigated.

I would render full justice to the American militia. In the defence of their country, of their homes and of their liberty, they have done wonders, and displayed the greatest patriotism, self devotion and intrepidity. Sober, vigilant, active and brave, nature has admirably qualified them to become good soldiers; they bear, without repining, hunger and thirst, heat, cold and fatigues of all kinds; they are generally good marksmen, and as light troops incomparable; when covered by walls or lines, when fighting in woods or marshes, they will stand against ve-

teran troops, and when supported by regulars, have sometimes eminently contributed to success in the field.

But, although they will hold a line as long as they only have to fire before them, they cannot stand if they are turned, nor rally if they are broken on any point, nor be led to successive assaults, nor return to the charge if they lose their position. It cannot be expected that they should stand alone a regular and scientific attack, nor a prolonged campaign; and besides the consciousness of inexperience, both in the chiefs and men, the little confidence which they can have in each other, the novelty and terror of the scenes of danger into which they are brought, their anxieties about those homes, those families, those professions from which they have suddenly been torn, defects common to all militias, the Americans, from the very nature of their government, have some defects in their militia system peculiar to themselves.

1st. In the first place, their organization in brigades, battalions, and their armament and equipment, (whatever the constitution may require) their service, discipline and instruction, such as they are, vary in every state, and are more or less strict or uniform, according to the care which the several state governments, who jealously reserve to themselves the direction and superintendence of their militia, choose to give to these objects. When brought together, this produces all the inconvenience which is found in a confederated army of different independent nations; armies which are always bad and insufficient, even when the troops which compose them are separately well organized and instructed, which is far from being our case.

2d. In the next place, the mode of appointing the militia officers varies also in different states, but is no where calculated to put in these important and confidential stations the most proper persons. In some the council of appointment, in most the men themselves select them. In some the staff officers are named by the state governments; in some by the

choice of the subaltern officers. Supposing that party spirit and private influence had no share in these appointments, how are the qualities, instruction and fitness of the officers to be appreciated by such methods. It is evident that generally their epaulets alone must distinguish them from the men whom they command. A few brilliant exceptions, such as Brown and Jackson, Harrison, Ripley, Johnson, &c. do not militate against this general rule.

3d. Thirdly. The manner in which their services are combined with those of the regular army and of each other, produces serious inconveniences. The law merely provides, that amongst the militia of several states, officers of equal rank take command according to their seniority, and that the officers of the line only take precedence of those of the same rank in the militia. The governor of the state where the army serves has the right of assuming its chief command, whatever be his military capacity and instruction. In consequence, a militia officer, perhaps chosen for his electioneering influence, and exclusively applied in the previous course of his life to other cares and to other studies, may happen to command and direct the operations of an experienced soldier, who has made the art of war the study of his life. In every other profession, some previous information is deemed necessary. No one would confide his health to a physician, his fortune to a merchant, his affairs to a lawyer, without full confidence in his learning or experience. But we confide the defence of our country and liberties indiscriminately to every popular favourite. The jealousies and dislikes, which must break out between the militias of several states; the difficulty of subjecting them to the command of a chief who may be of a weaker state, must strike, at the first view, any person acquainted with the nature of these troops in all ages and countries.

4th. Fourthly. From the nature of our federal constitution, it is impossible to count on their services, when their state governments do not choose to co-operate heartily and

actively in the general cause. At any rate, those governments claim the right of raising and organizing as they please the forces which the federal government require to be put at their disposal. In the last war, the New-England states positively refused to aid the government, and in Massachusetts, the supreme court, authorizing that selfish and unpatriotic conduct, expounded according to the popular feelings in that state, the article of the constitution which specifies the cases where the president may call upon the service of the militia. In the review of that war, we have developed the misfortunes which resulted from these measures, and the state of weakness and imbecility to which they reduced the Americans. The prudence and moderation of the general government, which passed over their conduct, and avoided a discussion which might have brought on a civil war, probably prevented greater evils, perhaps a separation of the states. But those recent facts imperiously prove how little the militia alone can be relied on.

5th. Fifthly. From the little instruction, authority and credit of their officers, from the very spirit of independence of the people, who deem an exact discipline incompatible with personal liberty, it is impossible to reduce them under proper subordination. And yet the Romans, the freest and proudest of nations at home, were sufficiently submissive and obedient in the camp. They understood that military subordination is never degrading, because its object is noble. Amongst us, slight fines are the only means of compelling the service of the militia, and even these excite every day the most scandalous and expensive lawsuits and public discussions, as shameful to the national character, as they are intolerable in the daily course of service.

6th. Sixthly. The service of the militia is not only insufficient, but most extravagantly expensive. Not only, as I have formerly mentioned, is it ruinous to those individuals whom it withdraws from their ordinary avocations, and whose

losses should be included in the estimation of its expense, but its temporary administration, organized in the sudden moment of necessity by men of no experience, is always disorderly and profuse. From the variability of its force, from the rotation of its service, it is impossible to ascertain exactly its numbers and consequently clear its accounts, even where there is no malversation. It is very difficult to settle which charges belong to the states and which to the central government, and between them, all the wants of the militia, their armament, clothing, equipment and approvisionnement of all kinds, the hospital expenses and those of the medical department and artillery, &c. are always miserably provided, confusedly administered, never accounted for, and yet paid by the nation at the most extravagant rate. Are these accounts all settled since the last war? Are they ever likely to be settled?

From all these reasons, the militia is not calculated to resist alone a strong invasion, nor stand a long campaign. They are brave; they may be exalted by enthusiasm in a day of battle; and, as light troops, we have already observed, that they are incomparable. But we cannot count upon them for the sole defence of the country. If such was our purpose, it would be necessary, by a uniform and general law, to divide it in classes; to withdraw entirely, from the superintendence of its respective states, a given portion of the youngest and most active classes, and to commit the power of requiring and compelling their service, by rotation, during a portion of every year, the power of appointing their officers, and the whole of their organization, administration, discipline and instruction, to the uniform, steady and simple direction of the central government. A military system founded on this principle, might be rendered most perfect and proper for a republic. But it would be needless to dwell on measures which will not be adopted. The state governments will never commit their militias to the federal executive. For that very reason, if they do not wish the

country, to remain in a defenceless state, they must maintain a regular army at its disposal, calculated to support the militia, and encounter the efforts of a disciplined enemy.

Even then, some of the abuses and defects existing in the militia system would require to be redressed; and the state governments can do much for that purpose. It were highly desirable, that the organization, instruction and discipline, armament and equipment of the militia, were uniform; that their service and administration, when acting conjointly with the regular army, were better fixed, and that more care were taken in the selection of their officers; some previous instruction required by the state governments in the candidates for these offices, and a preference given in their appointment to such citizens as had served in the army, in some former war, or in the military schools.

A last and a serious objection has been lately raised against maintaining a regular army in America. It is a delicate and a painful subject, and one which I do not willingly enter in. Some disagreeable differences have arisen between one of our most justly celebrated chiefs and some of our representatives and civil authorities. On these it would not become me to give an opinion. But it has been pretended, in consequence, that the spirit of our army is already mutinous and arrogant, and that it behoves us to get rid of it in time, and before it grows dangerous.

I trust that the sensitiveness of private feelings, and perhaps the exaggerations of that party spirit, and of that jealousy of the government, which sometimes thwarts amongst us the most useful measures, and throws a cast of disingenuous illiberality on our public discussions, unworthy of a free and great people; I trust that such are the only foundations of this accusation. But supposing, for the sake of argument, that it were founded; we should first ascertain whether we can dispense with the services of the army, and if we find

that we cannot, we should correct whatever abuses may exist in its laws, establishments and military spirit. Patience, discipline, obedience, and a proper subordination to the government, and to his chiefs, in all that concerns his military service, to the civil authorities on every other occasion; such should be the first and most indispensable qualities of every soldier. The functions of the army, in the great political machine, should operate as silently, as smoothly and regularly, as those of its other wheels. If that part of the machine jars and creaks, and impedes the march of the rest, repair it, replace it in its right order; but if you take it out, and cast it away, beware how the machine will go on without it.

If the navy and militia are not alone sufficient to protect us, it becomes of the utmost importance to examine the principles on which our defensive force should be formed, and the elements of which it should consist. These objects we shall endeavour to investigate and discuss in the next chapter.

CHAPTER V.

Necessity of organizing both the materiel and personnel of our defensive means on a permanent footing, in time of peace, and under the sole control of the national federal executive.

THE permanent force which is necessary to protect every nation in time of war, and even to secure its respectability and independence in time of peace, divides itself under two heads, which the French writers term the *personnel* and the *materiel*; and which a lawyer amongst us would call the force of persons and the force of things. The first consists of the troops, the second of the arms, ordnance, and ammunition, subsistence, clothing, lodging and necessaries of all kinds; of the administration of all these means, of the fortifications, roads, bridges, canals, instruments, &c. which are required to render the service of these troops effective. However opinions may differ about the necessity of organizing the *personnel* in time of peace, it is evident that the *materiel* must be organized with leisure and tranquillity. The hasty works which are thrown up in the moment of danger, are generally badly planned, insufficient for their purpose, and erected in the most slovenly and expensive manner. The same may be said of all sudden preparations of war, the armament, the subsistence, medical means in such cases, &c. are almost always incomplete, extravagantly expensive, and administered with confusion. The first care of the government should therefore be to erect those permanent fortifications which are necessary for the defence of the country.

It may appear a gigantic enterprise, and beyond our means, to fortify such an immense extent of coast as that of America.

But it is not the number of fortified posts which constitutes the strength of a frontier; it is their proper disposition. It is well known that the Roman empire was never so weak as when every village was converted into a citadel. The expenses which government applies to such purposes, should be calculated upon the relative importance of the points which it has to defend, and that can only be ascertained by exact and scientific surveys. Such as cover a vast and rich extent of open territory; such as secure the great communications of a country by land or water; such as contain an immense proportion of private property, or such as are destined by their position and natural advantages to become the seat of great naval or military establishments, require to be defended, and against such alone, will great expeditions and great efforts be directed. An invader would soon fruitlessly ruin himself by a contrary course. Less important points will therefore seldom be attacked but by small predatory parties, and must be left to their own local means of defence. If the enemy should waste great expense and powerful means in attacking them, all cannot be guarded, and some must be sacrificed to cover others of more importance. The destruction of New-York, for example, would be a greater disaster, even to the people of the Niagara frontier, than that of Buffalo.

In tracing the probable views of the enemy in the next war, we have designated the chief points which require to be fortified. Our naval establishments, on which the future greatness of America chiefly depends, are the most important; no expense can be considered too lavish for the purpose of organizing and strengthening them on a scale worthy of their future destinies, and enabling them to defy every attack. If these stations are not occupied by us, they will be occupied by the British, and become more mischievous in their hands, as centres of annoyance, than useful in ours, as centres of defence. The same observation applies to New-Orleans; but the labours pursued at this moment by the American engineers, will soon give us more exact notions on this subject.

The reconnaissance which they are making is one of the wisest measures of the American government. No permanent defensive works, requiring so much time and expense before they can be finished, should be undertaken till such a reconnaissance of the whole frontier, under all its military properties, has ascertained their use and necessity, and combined their relations with each other on a grand and uniform system, (7) *vide note 7*; otherwise chance alone and a very unlikely and uncommon chance, must guide us in selecting proper positions. Such works should not be erected for small and local interests, but all with a view to the part which they must act, in the general system of the national defence.

When all the chief points in the country shall be sufficiently secured by permanent defensive works, the enemy will uselessly exhaust his resources in attacking them by grand expeditions, such as we have mentioned in the preceding chapter. He will be reduced to predatory excursions along our coasts. But the erection of such works alone is not sufficient; they must be armed, manned, and communicate together.

The second care of the government should therefore be to open easy, ready, and cheap communications, by land and water, between all these defensive posts, and to extend their ramifications through the whole country, to connect the general defensive system, and thus be enabled to carry their forces rapidly on every menaced point. A scientific and military topographical survey of the whole country, of its levels and soils, even of its geology, and of all its military qualities, is therefore indispensable, before the grand system of the national communications, canals, roads and bridges, &c. can be organized on a proper plan; such only as are necessary open, and no useless expense lavished on points of no importance. I need not expatiate on the utility of such works for a thousand purposes, almost as important as our military defence.

But to utilize these surveys, it is necessary that the an-

nual result of the labours of our engineers, the collection of all their views, projects, memoirs and calculations, their topographical, military and statistical works of all kinds, plans, views, charts and maps, descriptive of the whole of our country, under all its properties, and of all possible improvements to be made in it, should be deposited in the war office, classed and registered, and religiously preserved for the government to consult on every occasion. This collection should form the *archives* of the forces and means of the nation, the memoir of its defence : no part of it should be published nor allowed to circulate but by the express desire of the legislature or executive, and if copies be sent by order of the government to direct public works, commanding officers, &c. the originals should always remain at the disposal of the secretary of war. Such an establishment is productive of incalculable economy and benefit ; it is considered indispensable in every well organized government. (8) *vide note 8.*

The next care of the government should be to secure the armament of the nation. Those who are not aware of the magnitude and importance of England's military establishments, may see, in the memoir of Chevalier Dupin, the immense means of hostility and destruction which she has collected, the care with which she improves them, the perfect order in which they are classed, preserved, and organized, and the readiness with which they can be put in activity. That similar, if not equal establishments, should be organized in this country, administered with order and economy, but without parsimony, and directed by men of consummate skill and knowledge, is most necessary. Our foundries, arsenals, military establishments of all kinds, destined to provide the navy and army with the means of the national defence, should be formed on a scale of magnitude, corresponding to the power of the enemy and to the importance of the objects which they are destined to defend.

A great part of our armament is provided amongst us by

the state governments and by the people themselves, for the first interest of a free people is to be universally armed. But every man conversant with military service, must conceive how necessary it is that the armament should be uniform, and to what trouble, confusion, and serious inconvenience we must be exposed by the multitude and diversity of calibers, when the different states and individuals are left to provide themselves with arms, according to their own fancy. If all military fabrics were put under the inspection and direction of the national government, this evil would be remedied, and we do not conceive what possible alarm such a measure could inspire, or what additional power it would give to the government. At least, were it for this reason alone (and we shall give many others), it is indispensable that a central ordnance department and a corps of national artillery should exist, not only to provide for the national service, but to serve as a model to those of our twenty different states, to pursue those experiments and form those great depots, which require the means of a great nation, and to concentrate the theoretical knowledge and modern and growing improvements of that service. (9) *vide note 9.*

The approvisionnement of an army in all the necessaries of life, subsistence and forage, clothing and covering, medical means and hospitals, &c. which completes what we have termed the *materiel* of the national force, and is the proper subject of military administration, must be secured at the approach of war; but during a time of peace may safely be proportioned to the small force which is then kept upon foot. Before the establishment of our commissariat, this part of the service appears to have been in a state of infancy amongst us. Those kinds of means are all provided amongst us by private contract, a very sufficient way, if properly directed and inspected. But our generals were then obliged to conclude those bargains and contracts themselves, and had no prompt or sufficient means to compel their execution. Charged thereby with a multiplicity of cares which they

could not attend to, their views were at every moment turned aside from those objects to which alone they should be directed, and military operations frequently failed in consequence.

If we turn from the *materiel* of war, to the *personnel* of troops, before we develop the manner in which they should be organized and employed in our national defence, we must again combat a common prejudice existing in this country. Granting, it is said, that a standing army is necessary in time of war, and not dangerous to our liberties, cannot we always organize one when it is wanted, and avoid burdening ourselves with such an expense in time of peace.

But if an army is only organized in time of war, it will at first be no better than a militia. In the course of time it may acquire firmness and experience, generals and officers may be formed, its service and administration may be regulated; but, in the mean time, if the enemy acts with common foresight and vigour, that experience will be dearly bought by severe losses and humiliating defeats. The difficulty and the immense expense which will attend the forming and recruiting, training, officering and organizing at once a whole army, can easily be appreciated; the confusion and prodigality of all sudden military preparations we have already dwelt upon. In fact, the enemy will meet with no resistance from such an army in the first campaign, and very little in the second, and what mischief may he not do during that time. This was the case even in the beginning of the last war, when the British were so ill prepared on their side.

An army consists of officers and privates. The number of the privates may indeed be very much reduced in time of peace, for they can always be trained in the course of a few weeks when their services are required. But still a certain number must be maintained, to keep up the habits of discipline, military spirit and practical service, and instil them

afterwards in the recruits. From some personal experience, I can aver that nothing is more inefficient than new corps; it is this which makes the difference between them and veteran regiments. Besides, the non-commissioned officers on whom the discipline and daily duties so much depend, can only be formed in a long course of regular service.

But the good qualities of all kinds of troops must always ultimately depend on those of the officers. From the progressive and successive improvements of the art of war in all its branches, in the organization and administration of armies, in their discipline, in their movements and tactics, in the various and more scientific department of the staff officer, artillerist and engineer, that art has become an abstruse science, and requires that a certain class of men should devote to it the whole of their thoughts, studies and time. And if these men serve with the prospect of being disbanded on the return of peace, can it be expected that with so short and precarious a career before them, and so small a stimulus to their ambition and love of glory, they will apply themselves with enthusiasm to a study in itself dry and unattractive, and to all the petty cares and details which must employ every moment of a good officer's life. Neither do those brave men who defend their country in the hour of danger, deserve, when danger is past, to be cast off to want and poverty, viewed with jealousy and distrust, be arraigned perhaps for their very services, and have the smallest pittance dealt to them with unwilling parsimony, after a great loss of time and labour, and when they are incapacitated for every other profession. Such conduct is impolitic as well as ungenerous and unjust. Unless the profession of an officer be rendered as permanent and secure as it is honourable, unless he is thereby inspired with a proper love for his service, and for that purpose maintained in time of peace, exclusively applied to the study and practice of his military duties, these places in time of war will never be filled but by idle loungers

and dissipated coxcombs, smitten with the flash of a uniform and brilliancy of a parade.

Even in the subaltern station of an officer of infantry, how various and how important are his functions? They must engross not only the whole of his time, but the whole of his thoughts, hopes, ideas, and prospects. And is it to be expected that with no more information than what he may have acquired on a militia parade, any citizen, drawn from his ordinary avocations, to undertake the command of a company, will be acquainted with these duties, and practise them by intuition. Suppose he devolves them upon his sergeant, the sergeant must possess the requisite qualities. Such was the case in France before the revolution; all military offices belonged by hereditary and prescriptive right to the nobility; and those luxurious and effeminate minions, whose only merit was personal bravery, devolved on their plebeian subalterns the whole of their duties; but when the revolution broke out, Hoche, Soult, Pichegru, Massena, and a crowd of heroes and warriors, burst forth from that class, where a great deal of military information had gradually spread and concentrated itself.

The duties of an officer of infantry are not confined to the exercises and manœuvres of his troop; these are intelligible to the most vulgar capacity, easily learned, and easily directed. But his cares must be extended to every thing that concerns its welfare; he must be the father of his company; the cleanliness, temperance, morality, and health of his men are under his daily inspection; their service, order and discipline he should constantly superintend; their instruction direct, nor disdain to enter into all their little interests, and all the details of their clothing, feeding, lodging, armament and equipment, &c. If the captain and officers of every company do not keep a constant and watchful eye over these details, the waste and profusion of the regimental administration can never be

remedied by the exactness or vigilance of any superior authority. A good captain should form the spirit of his men, and by attending with zeal and inclination to their interests, he will secure, sooner than by any improper weakness or indulgence, that affection and respect, which a soldier should feel for his chief, in every well regulated army.

These cares, with the study of his particular service in every situation, and a general acquaintance with the whole theory of the art of war, should be common to every officer. But in the artillery, the previous information required is still more extensive, the details of service are more numerous, and the objects of inspection more important. If indeed the duty of the artillery officer be confined to the direction of a fixed battery, or command of a company, he may learn it by rote, and that may suffice for the service of the militia, and the defence of fixed positions on the coast. But if he wishes to understand his profession theoretically, he must acquire much previous mathematical learning, and receive a scientific education. Nor is there any part of the sublimer theory of tactics to which he should be a stranger; the principles of fortification he should understand, either to attack or defend them with success, and the tactics of the field, to co-operate in them with effect. As the ordnance department is a branch of the artillery, the fabrication and inspection of all kinds of arms, makes a part of his attributions, and he must be versed in all the process of their manufacture. (10) *vide note 10*. It is absurd to think of creating such a corps at the moment of war; it has required centuries to carry it to perfection in Europe.

The profession of the engineer requires still more learning and study, as much indeed as those which are called the learned professions, the lawyer's, physician's, or divine's. There is scarcely a branch of natural philosophy which should be totally foreign to his studies; the laws of mechanics, the force of chemical compounds, the specific weight and gravity

of every substance which he may employ, should be familiar to him. He should be acquainted with the whole theory of tactics, to judge, at one glance, of the military properties of a country; he should be fertile in resources and inventions, ready at drawing a survey, and levying a map, prompt in calculating, and accurate in balancing the means and object, expense, time, and materials requisite even for a sudden work. His profession, in short, is one of the most profound and practically useful of the branches of human learning; his talents may be pre-eminently serviceable in time of peace, applied to those internal improvements by which commerce, agriculture and manufactures are equally benefited, and in time of war his services are indispensable. Exact surveys, by pointing out the proper places, and proper means of defence, save at such moments an incalculable expense to the nation, which would have been thrown away on useless and ill-designed works. England, with laudable spirit, is endeavouring at present to form a good corps of engineers; but in America, the fruits of such an establishment would be incomparably greater; for in no country can works be erected of such magnitude, of such benefit to posterity, and to the world; works to immortalize the name, and excite the disinterested ambition of any engineer. The genius of that useful corps should not be cramped by an illiberal and short-sighted parsimony, their feelings disgusted from the service, and their conceptions rendered useless. Our engineers should be numerous and instructed, organized on the most efficient footing, and maintained on the most liberal system; for every good engineer who retires, is a real loss to the country. (11) *vide note 11.*

The staff and administration equally require to be directed by experienced officers. An intimate acquaintance with the various and infinite details of military service, and habits of order, economy, exactness, and despatch of business, are essential in these departments. The most serious evils result-

ed in the last war from the want of a good commissariat. General officers, it may be said, have sometimes distinguished themselves without any previous military information. It is true, that some sublimer geniuses, soaring at once to the higher excellences of the art, have formed rare and brilliant exceptions to the general rule. But that genius, that intuitive instinct of tactics, that eagle glance on the field of battle, which makes a great general, which Moreau and Jackson displayed on leaving the bar, and Cromwell and Condé in their first battles, that genius would not suffice to make a good staff officer, nor even a tolerable adjutant. These should be acquainted with the various service of all kinds of troops in every situation, and with their general discipline and administration; they should have the habit of analyzing, classifying and abridging the multitude of reports which they receive, and drawing clear abstracts of them, &c. It would be absurd to imagine that the generals who command, direct and superintend the whole of the service, the staff officers who assist in them those duties, and draw the regular and pertinent reports of that service, require less study and information than those who are to execute their orders.

Let us not then be reminded of a Curius, a Regulus, a Cincinnatus, and of all those worthy Romans who repeatedly left the plough to assume the command of the legions. In the first place the art of war was then in its infancy. How long would the legions of Rome have stood the attack of a modern army with its artillery? The science of the engineer was out of the question, and the operations of those small corps of heavy infantry, with very little cavalry and very few missile weapons, were confined to the neighbourhood of their city, and not calculated upon the surveyed topography of the country. In the next place, the Romans, those illustrious robbers, were a nation of thieves and soldiers; they subsisted by war and plunder, and those very chiefs, far from being raw recruits, had served from their earliest youth, and had

successively passed through every rank of the militia, before they attained to the command of armies.

This chapter has been devoted to proving the necessity of organizing the two great branches of our defence, both the *personnel* and *materiel*, on a permanent and sufficient footing. In the next, we shall endeavour to point out the best manner of forming and organizing those means, employing them in time of war against such an attack as I have described, and even utilizing the services of the army in time of peace.

CHAPTER VI.

A brief Abstract of the simplest, safest, and most effectual mode by which the national forces might be raised, instructed, organized and employed in time of peace and in time of war; of their destination and numbers.

If we have succeeded in proving the necessity of maintaining a standing army, the next point to consider is the best mode of forming and organizing it. Besides the general, administrative, medical staff, and engineers, an army is composed of corps of cavalry, infantry and artillery. Cavalry we have little need for; the enemy cannot send against us any considerable force of that description by sea, and our northern frontiers are unfavourable to its movements. Mounted riflemen will suffice for every purpose, and have been employed against the Indians, and even against the British troops, at the Moravian towns, with great effect. But where cavalry is necessary, it becomes most important to maintain it on a respectable footing in time of peace, from the long training and instruction which men and horses require, and the difficulty of organizing it at the moment of war.

Even in infantry and artillery, from the nature of our northern frontier, which is only assailable on some points, from the immensity of our western deserts, impervious to any civilized enemy, from the small numbers which can be directed from the distant regions of Europe against our eastern or southern shores,* we need fewer troops than any nation possessing a military force. And our chief and ultimate de-

* This argument loses much of its force if the British acquire Cuba.

fence, as we have observed, rests and should rest upon our militia.

But we have seen that the militia alone is not sufficient for that purpose. The army, therefore, if properly organized and on a system concordant with our republican institutions, should not be considered as the sole defensive force of the nation ; but as the firm basis on which that force is built, the steady centre round which it forms, the model on which it should be organized. The free and armed citizens of America should all rise to defend their country in the hour of danger ; but those who have made an exclusive and particular study of the art of war, those who are paid and appointed by the people for that purpose, should stand in the front against the first attack, cover their fellow-citizens by their steadiness, guide them by their experience, and give them the example of obedience and of discipline.

The soldiers in our army are raised by voluntary enlistment at high premiums. Besides being very expensive, this method is not calculated to procure a chosen quality of men. We certainly think that the annual service of the active class of the militia, in whatever small numbers, would be a more national, a more republican mode of filling the ranks of the army, and give it a higher and prouder character. But as such a measure would be unpopular, even on the smallest scale, and as we need but few troops, we may expect that from whatever class our soldiers are drawn, a severe discipline, but tending to exalt the pride of the soldiers, and not to break their spirit with harshness, flogging, and ill treatment, a paternal and constant attention to their interests, a certain respectability given to the military character, a security against distress and beggary in their old age, and, above all, forming a good corps of officers, attached to their profession and proud of it, will suffice to make a good army, even out of bad elements. It is to be hoped that such a system will prevent those murmurs, discontents, and frequent desertions,

which a stranger finds with surprise in the troops of so great and noble a republic, in those very troops who have so gloriously distinguished themselves and their country.

On the officers must ultimately depend the character of all troops, and if we can secure a sufficient number of good officers, soldiers will soon be formed. There are two modes of providing an army with experienced and instructed officers, either by drawing them from the sub-officers and cadets attached to each company, or by rearing them in military schools. There is a third mode, indeed, which I had nearly forgotten, and which is much practised here as well as in England; that is, appointing to every rank, either by favour or interest, without regarding the previous qualities or information of the candidate, and trusting to his disinterested zeal for acquiring the means of promotion, after he has obtained the end.

As to the first of these modes, it can only be applicable to the service of the line, and even there, only in a country where the army is raised by the conscription, as in France, and comprises in the ranks men of all descriptions and degrees of information. A few promotions amongst the most able and clever sub-officers would tend however infinitely to exalt the pride and character of the soldier, and raise his profession in his own eyes. In France, most of our general and superior officers rose from that rank.

But engineers and officers of artillery, who require a long and scientific education, can only be formed in military schools. And for several reasons, it were best that the mass of our officers should also be drawn from those establishments, where they might be brought acquainted, more or less, with every branch of learning belonging to their profession, and with the general theory of the art of war; a knowledge which they can scarcely obtain in the seclusion and constant occupation of a regimental life. The field and staff officers, especially, who are generally drawn from the line, would not have to acquire that necessary information by slow and painful experience.

It is acknowledged that the present organization of our military schools, and the instruction given in them, are insufficient. But after the excellent report of the secretary of war on this subject, little more need be said. If its views be adopted, these schools will be amply sufficient for every purpose.

The greatest difficulty which will attend their organization on this vast and noble plan, will be the little encouragement which they will afford to young men desirous of pursuing the military line, from the small number of scholars who can be provided for on the present scanty establishment of the national forces. There is no doubt that our corps of engineers requires to be enlarged. They are overloaded with business, and what they can do, they must perform in a hasty, insufficient and unsatisfactory manner. They have got no aids under them to inspect the conduct and detail of their works, as the French engineers had in the regiments of sappers and troops of the *arme du genie*. Ten times as many engineers could be most usefully and advantageously employed for civil as well as for military purposes, and no money could be laid out with greater profit; for the order, despatch and economy of their works would cover the expense tenfold. Nothing is more expensive than bad, and nothing more economical than good engineers.

Most liberal encouragement should be given to all young men desirous of entering these schools, and on leaving them, they should be free, either to follow the line of public service, or apply their acquired information to their private advantage in the construction of public or private works, roads, bridges, canals, manufactures, &c. The state governments might greatly promote this object, by employing them in the direction of their public works. This they might do with great advantage and economy, and America has labours of that nature to perform for centuries, before she reaches the summit of her grandeur. By these means a vast fund of sci-

entific mathematical learning will be disseminated through the country, and in time and case of need, every young man thus brought up, may serve as an engineer in the defence of his native state, and moreover, be sufficiently acquainted with general tactics to direct military movements. For the local defence of such parts of the union as the general government cannot at all times provide for, this will be an inestimable advantage.

In like manner, if the state governments would generally take care to appoint such young men to commands in their militia, especially in its staff service and artillery, that measure alone would in a great degree remedy the defects of these troops, and render their service more efficacious.

The result of all these observations and of this whole work is, that to have a good army on a system adapted to our government and circumstances, we should form and entertain a great number of good officers, and then we may safely reduce the number of our soldiers; that to avoid the necessity of creating and instructing new corps, we should rather diminish the force than the number of our brigades and battalions, and organize them so as to incorporate readily in their ranks any reinforcements which circumstances may require, such as the probable means of the enemy, the nature of those means, and the mode of attack which he may adopt. Those brigades, supported and flanked by the militia, whose courage they would confirm by their own steadiness, would prove sufficient for our defence on every important point. The militia would serve as excellent light troops to guard them, and watch and harass the enemy. How far it might be proper to add to each brigade a small detachment of light dragoons and riflemen, and one or two field pieces, are military questions, which the experience of the brave officers, employed in the last war and acquainted with the topography of the country, can best resolve.

Our present establishment is clearly insufficient for these

purposes, and if further reduced, will become absolutely useless. It comprises only nine full battalions and about 300 officers of infantry. In time of war, we shall need a division of the army at New-Orleans, supported by the militia of Louisiana, Mississippi, Alabama, Kentucky and Tennessee. The militia, well organized, may perhaps suffice for the defence of Florida, Georgia and Carolina, but the Chesapeak will require a strong division of the army to cover our national establishments, the seat of government, and the rich shores of the bay. (Maryland should be attached to this division.) In our northern department, Ohio, Indiana and Michigan, (to which the Illinois and Missouri territories should be attached,) require a division of the army to garrison our Indian frontier to the Yellow Stone river, and in time of war, heading the militia of these states, pour upon Upper Canada. Another will be required on the Hudson, on the Delaware, in New-England, covering Boston and Rhode Island, and another on the northern frontier of New-York and Vermont. It is evident that 40 battalions and 1000 officers will scarcely be sufficient for this service, even if the militia be so improved as to give some reliance on its service and co-operation. It is not necessary that we should therefore maintain that number, small as it is, in time of peace, but we should always have the means of completing it immediately on the approach of war.

For that purpose we might maintain twenty battalions, reduced to half the number of privates, a force little superior to what we maintain at present, but fully officered, and even attach to each of them a certain number of supernumerary officers. As soon as we determine on raising the army to the war establishment, these battalions should be completed, organized in brigades and divisions, and encamped, whilst the supernumerary officers and sub-officers, detached with some chosen soldiers, receive and incorporate the recruits and organize twenty other battalions. If the military depots be amply

provided with arms, clothing, equipment, field equipages, &c. It is inconceivable in how short a time this may be done. I have seen corps thus formed with good elements, ready to appear in the field in the course of a few weeks. The number of officers required in such an organization of the army will occasion a trifling augmentation in its expense, but of no moment, when compared with the advantage of having all its *cadre* ready formed at the moment of war. The economy of time and expense, thus procured, will be understood by all who know the value of foresight and order, and the superior quality of such troops, by all military men. In fact, new corps will otherwise be no better at first than the militia, and cannot support it.

I need scarcely add that depots of ordnance, arms and ammunition, approvisionnement and forage, clothing and equipment, should be formed at the same time, and placed at a secure distance behind the armies, with some safe and easy communication between them. All roads and canals, necessary for the armies to communicate, should be opened, and the time requisite for such movements be calculated with precision.

We may then securely brave any invasion of our territory; for before the enemy can have made an impression on those important points, which deserve to attract his efforts, and which will, by that time, be fortified, a corps of experienced soldiers, led by military chiefs, and supported by the militia of the neighbouring states, will move against him; and we trust that, in the contest, the spirit of patriotism and the consciousness of the noble cause which they defend, will ensure victory to our troops and to the American flag.

We cannot however entirely prevent England from harassing our coasts by small predatory expeditions, putting us thereby to great trouble and expense, and fatiguing our militia by

frequent duty, marches and countermarches. But we can retaliate severely upon her. Our numerous privateers and our navy can pursue and almost destroy her trade on every sea, alarm her on her own coasts, and oblige her to divide her naval forces in every quarter. We can menace her colonies, we can conquer Canada. Invasion and conquest may seem a measure contrary to our republican institutions. But in fact this movement would be a defensive measure; for by the natural situation of Canada, the British keep our whole northern frontier from Maine to Illinois in a constant state of alarm, and carry their hostilities in every part of it, oblige us to maintain on that immense frontier a great naval and military force, divide our means and attention, and surround our country; whilst by occupying Quebec, or Montreal, or any single point on the eastern extremity of that line, we secure the whole of our northern and western frontier for ever, and are enabled to turn all our means and attention to the protection of our sea-coast. The rest of Canada must fall under the well managed efforts of any one of our western states. We trust that, by a system of defence thus organized and conducted, Britain would soon be weary of a fruitless and hopeless contest, where the only injury she could do us, interrupting our trade, would be returned upon her tenfold, and where she would find herself unable to stop the progress of our country, or hurt its vital interests.

Such, in the moment of war, will be the result of forming a good military establishment. But is it necessary, even in time of peace, that the army should remain a dead load upon the nation? Undoubtedly not. The life of a soldier should be a life of constant labour and exercise. Turn these to the public account. The Romans, occupied with incessant labours, never suffered from diseases in their armies, whilst in Europe they are more destructive than war. And the listless indolence of a garrison life, in the wilderness of our frontiers, would be insupportable, without some employment, to keep up the health and spirits of the soldier.

In summer they should be employed under the direction of engineers in opening roads and canals, and constructing bridges and fortifications. The axe and shovel should be as familiar to their hands as the musket and bayonet. And as the officers should all be acquainted with the elements of field fortification, these habits would be of incalculable value in time of war. In the intervals of labour, military exercises, swimming, shooting at a mark, &c. should fill every moment, and the scrubbing, polishing, and all the coxcombr of dress with which they are kept occupied in Europe, be given up. It is a fact, however ridiculous, that elegant white undresses were given to several British regiments of cavalry, to employ the soldiers in cleaning them. Nothing should be plainer than a soldier's dress. Convenience and uniformity should be its sole beauty.

It will be highly useful to accustom them to remain under tents during a part of that season. Tents were latterly quite unknown in the French army. During five years service I never saw one. Curtailing all the necessaries of life in that manner, certainly facilitated the rapidity of our movements, but at an immense waste of health and life.

The leisure of winter should be consecrated to forming the moral character and habits of the soldier, and instructing him theoretically in his service. The sub-officers especially should be examined on all the branches of their duty. Regimental schools on the Lancasterian plan, where all the soldiers should be taught at least to read, write, and account, regimental libraries for the use of the officers, where books of history, geography, mathematics, and all kinds of military works should be at their disposal, would be of incalculable benefit, and serve to substitute the habits of decency, order, discipline and morality, to that drunkenness, to that gambling and dissipation in which ignorance and indolence so frequently plunge the military. Libraries might even be established for the men; it is done in England. That idea might be carried

much farther. These schools might be of use to the neighbouring population, in those remote districts where our troops are usually quartered, and the regiments become centres of morality and instruction, instead of being, as they usually are, centres of vice and corruption.

And would an order of men so constituted and so employed be dangerous to the liberties of their country? Would the money expended in qualifying them to lead and direct the efforts of their inexperienced fellow-citizens, in the moment of danger, be wasted? No. Far from forming a heterogeneous element in the constitution of the republic, such an army would be the most powerful instrument of her defence in time of war, and in time of peace a most useful, respectable and honourable class of citizens. If attacked by regular disciplined forces, we must have forces of the same nature to repel them, and if it is better to have a good than a bad army, better to beat than to be beaten, we must train and discipline them in time of peace to render their service effective in time of war.

Let us, therefore, in viewing the ambitious and disorganizing designs of Britain, her immense means, her preparations for warfare, and the rapid improvements of her military system, neither abandon ourselves to supine indolence, remain unarmed and unprepared until the blow be struck, nor yield to terror and despondency on measuring the present disparity of our forces. Let us beware of any insidious attack against our union; let us never separate our interests, but organize ourselves, and fortify our frontiers, diffuse military knowledge by means of our military schools, and remedy the radical defects of our militia system, foster the infant establishments of our navy, and give every encouragement to those brave men who defend the republic in the hour of danger. Let us not take parsimony for economy, nor indolence for security, and we have nothing to fear. We have the noblest

country and cause to defend that ever nerved the hand or fired the heart of patriot soldier. The future happiness and liberty of the human race are perhaps confided to America. She will not betray the trust. If we do not fail to ourselves, we may defy every enemy, and support against an opposing world the standard of freedom and Washington.

NOTES.

NOTE I.

CHAPTER I. PAGE 11.

THE work of Chevalier Dupin has excited great attention in France. The duke of Ragusa, (Marshal Marmont) who had been reared with Napoleon in the military school of Bryenne, and began his service in the artillery, presented to the Institute a very able report on that work, of which I have subjoined a translation in the Appendix, (No. 1.) From the quantity of technical words, and formal phrases which it contains, I found it very difficult to translate, neither do I always agree with his excellency's opinions. His observations are sometimes trifling, and his encomiums exaggerated. But his report gives a very full idea of the present military force, and military improvements of Britain; it contains important facts and matter. Neglecting therefore all ornaments of style, I have confined myself to rendering its meaning as closely, as strictly and as literally as was in my power.

NOTE II.

Chap. 1. page 13.—This expression may seem rather strong in this country, where we are too apt to borrow from English writers all our notions of England. I do not mean to deny that the English troops were always very brave, very well drilled, well paid, well fed, well clothed, and made not only a very handsome appearance on the parade, but a very respectable one on the field of battle. But down to the present day, there existed no military establishments, no schools, no military instruction in Britain. The standing army was scarcely tolerated by the people; the officers were very ignorant of the grand principles of their profession, and promoted merely by wealth or parliamentary influence. Lloyd is the only English tactician worth mentioning. Their military administration was profuse and extravagant; their artillery officers were mere cannon firers; their engineers are to this day the worst in Europe, and even in the Spanish war, proved in the sieges of Badajoz, Burgos, and St. Sebastian, their ignorance and incapacity. The profusion of blood

which was spilt in these sieges and in the ridiculous assault of Bergen-Op-Zoom, was entirely owing to these blunders.

Military science in modern times first began to be cultivated after the barbarous ages of chivalry in the Spanish and the Italian armies of Ferdinand and Charles the Vth, led by Gonzalvo, De Leyva, Pescara, &c. In the civil and religious wars of the Netherlands and Germany, under prince Maurice of Nassau, D'Alva, Parma, Wallenstein, but especially under Gustavus Adolphus of Sweden, and the generals whom he formed, its theory was more deeply studied; campaigns were calculated and movements combined. Those great generals had meditated upon the tactics of the ancients, and adapted theirs to the nature of the arms then used. In the next century, the whole science assumed a new form, from the vast improvements which took place in the armament of the troops, and more especially in the artillery; from the general progress of wealth, science and industry; the greater means put in the hands of the sovereigns, and the creation of the corps of engineers under Vauban. France, under Louis XIV., became the military model of Europe. Spain and Holland had declined, Austria had numerous and good armies, but France alone had great and scientific military establishments, military instruction, a good corps of engineers and artillery, and a general system of fortification. It is needless to cite the names of Turenne and Conde, Luxembourg, Villars, Catinat, Berwick, Vendome, &c. In the next century, Frederic of Prussia improved the tactics of the field, almost to perfection, although in the grand combinations of a campaign, his conceptions were not so vast as those of the French revolutionary generals: Russia and Prussia, two new nations, appeared on the political scene of Europe with excellent armies, but nothing more. The armies of France had declined after the death of Marshal Saxe, but her military establishments and institutions saved her at the period of the Revolution, enabled her to repel the efforts of all Europe, and to organize those means by which she played so great a part in the subsequent years. Since the fall of Napoleon, all the powers of Europe are endeavouring to imitate those establishments.

During all this time England never figured as a military power. In her civil wars a great deal of rude bravery; but very little skill, was displayed on both sides. Prince Rupert, Ireton, Fairfax, and Cromwell himself, although a man of prodigious natural genius, were no tacticians; their chief merit as generals consisted in a rude headstrong impetuosity and in the talent of acquiring the confidence of their men. Montrose and Lesley, who showed some more military skill, were formed in the wars of Sweden and Germany. In short, Marlborough is the only great general that England has produced from the age of the Edwards and

Henry, to that of Wellington, but Marlborough was formed under Turenne, who foretold that he would one day succeed him. In the next generation, the valour of the British troops and the incapacity of their commanders, were equally displayed at Fontenoy and Dettingen. A handful of highlanders were near overturning the British empire, threw the whole country in terror and dismay, and their defeat procured to the duke of Cumberland a most ridiculous and exaggerated reputation, which he lost at Closterseven.

Under the administration of Chatham the victories of the British troops in America were extravagantly praised by the vanity and ignorance of the national writers. And yet in the conquest of Havana and Canada their generals committed blunders that would have disgraced a schoolboy. But the superiority of their navy assured them an easy victory over an enemy who could receive no supplies, and the heroic death of the young Wolfe, in the first battle where he commanded, eclipsed the fame of his much more skilful and able rival, Montcalm, who, with a handful of men, had triumphed during three years over all the British forces in America.

During the revolutionary war, the blunders of the English generals, were still greater: nothing could equal the ignorance and presumption of Howe, Clinton, Cornwallis and Burgoyne: their vague, desultory, unsystematical movements, without object or combination, which terminated in the disgraceful inactivity of the two former, and the still more disgraceful capture of the two latter, present a singular contrast to those which the untutored genius of Washington, Greene, Gates, &c. suggested to the Americans.

It was during the French revolutionary war, and very slowly and gradually, that the British armies began to be improved, and their military establishments to assume a regular and scientific form. Indeed, so imperiously was their attention drawn to this object, by the great contest in which they were involved, and so universal were those military improvements to which France led the way, that their armies must necessarily have been ameliorated. I believe that under the administration of the Duke of York, they began to improve their military system. In Belgium, their troops made a very poor figure; but in Egypt, under Sir Sidney Smith, Abercrombie and Hutchinson, they appeared respectably, and in Spain, under Moore, and especially under the Duke of Wellington, they finally equalled the best troops in Europe. It is to be observed, that in all their recent improvements, they have chiefly imitated the French.

NOTE III.

Chap. 1. page 19.—The finances of Great Britain present certainly an artificial and imaginary wealth, which, like the collection of the electric fluid, may be discharged at a single shock. Is the artificial credit of her paper money boundless and exhaustless? We know that she can never pay off her debt, but can she afford to increase it at will, by paying the interest with an imaginary and fictitious value, whilst her trade and industry, additionally loaded, must diminish, and those of the rest of the world increase? The approaching resumption or non-resumption of cash payments, will perhaps decide this question; but this is not the only view in which it should be considered.

The wealth of England is not entirely artificial: The knowledge, the general instruction, science and industry of the people, is wealth; her excellent soil and agriculture, is wealth; the power of machinery, applied to her manufactures, was, several years ago, equal to the labour of 100,000,000 of able men; this is very great wealth; and the actual riches and merchandise existing in the country, the cities, roads, canals, &c. are also wealth. Great and terrible will be the shock of national bankruptcy; but after it, this real wealth will remain, increased in its value, and the reproducing powers, freed from the immense load with which they are charged, may possibly begin to act with renovated energy. Every individual in Britain will be ruined; but from the great mass of information, and the habits of activity and industry which exist in that country, its commercial credit may be retrieved, its losses repaired, before trade has decidedly run in another channel, provided the government does not turn those very means in another direction, and afford, in war and plunder, a career to the desperate enterprise of the people.

If this great change should be accompanied by an amelioration of the government, it should be desired by all good men, and especially by all good Englishmen. But if that government survives the shock, it will, for a time, be stronger than ever. Freed from its load of debt, it will have the unembarrassed disposal of means, less in appearance, but more in reality. Its stores of destruction are laid in, and exist; its navy and army, with all their immense *material*, exist, and are devoted to them; their numbers pass 300,000 men. An official return of the 25th January, 1819, laid before the house of commons, states the troops of the line alone at 109,810 non-commissioned officers and privates, 5852 officers, and 11,276 horses, of which 15,258, with 3516 foot guards, serve in Eng-

land, 18,923 in Ireland, 18,280 in India, &c. Add to these the navy, colonial corps, the native troops of Hindostan, the Hanoverian army, &c. and this is the state of peace.

They will be enabled to strengthen this army, by the very misery of the people; and thousands after thousands of starving wretches, when England ceases to be a manufacturing and industrious country, will seek for employment in its ranks, and be maintained at foreign expense. That government exerts at present its power, by the expensive system of corrupting the people; it may then throw off the mask, and rule by open force. In the mean time, it has interested almost every class, in keeping up the deception; even the poor, empowered to vest in the public funds, as corporate bodies, the economies which they had laid up in the saving banks, are thereby interested in maintaining the present system. Those economies were stated, in the course of last year, to have amounted, in England alone, to £1,254,000 sterling.

NOTE IV.

Chap. 2. page 24.—List of articles shipped to the continent by Great Britain, from the year 1808 to 1815. Laid before parliament.

Countries.	Cannon.	Muskets.	Barrels of powder.	Cannon cart.	Dozens of musket cart.
Russia,	148	117,270	800	242,112	7,135,600
Prussia,	105	1,417,270	12,000	34,750	17,405,600
Sweden,		1,417,270	4,000		9,950,000
Spain,	545	7,512,000	45,000	471,623	90,180,000
Portugal,	14	1,380,000	2,317	2,396	19,000,000
Germany,	22	1,390,000	15,200	3,200	18,000,000
Total,	834	13,234,410*	77,317	754,881	181,761,200

NOTE V.

Chap. 4. page 54.—The military establishments of France, the first incontestably in Europe, were administered with the strictest economy and the most admirable regularity. It was by that economy alone that she was enabled to bring them to such strength and perfection. Her fortifications were constructed at one-third cheaper than those of the

* The French arsenals in the whole empire of Napoleon, with the aid of all the private fabrics, and in the period of their greatest activity, could only fabricate 300,000 muskets in a year. Which was the most colossal power? which of the two enjoyed the greatest means.

other powers on the continent, and probably ten times cheaper than ours. It was by these means that Vauban was enabled to repair three hundred and build thirty-five fortresses on a general system of defence round her frontiers, a measure (we cannot repeat it too often) which saved France at the time of the revolution. The simplicity and economy of that administration, was brought under the empire of Napoleon to still greater perfection.

Before any permanent work was undertaken, its utility, in the general system of defence, and the purpose and object for which it was to be erected, were long and scrupulously debated. The expense was then calculated with the nicest accuracy and most exact detail, entering into all the elements of which that expense was to consist. A long experience had fixed the principles of these valuations. The purpose and expenses were then compared, the funds provided, and not a spade nor hoe was allowed to touch the ground till these were ascertained.

The same order and the same economy prevailed in all the other branches of the service, the fabrications of the artillery, the provisioning of all the national and regimental stores, and arsenals, &c. The funds were provided upon the closest estimates, their employ was constantly inspected by the numerous officers of the administration, and superior officers, who mutually watched each other. And yet on the funds thus furnished, the regimental administrations generally contrived to make yearly economies, which were employed in interior improvements or laid up for unforeseen occasions. When the regiment in which I began my service, the 8th chasseurs, was destroyed in Russia, a long course of administrative economy had so amply provided our stores with armament, clothing, equipment for men and horses, &c. that we were enabled to reorganize it in a few weeks, with very little aid from government, and send to the army five hundred men, completely appointed. The Russian and Prussian armies were the cheapest in Europe. The Russian army about 50 years ago comprised 150,000 men, and cost \$8,000,000; the Prussian, under Frederick the Great, 180,000 men, and cost \$11,000,000; the Austrian \$12,000,000. But these nations had only armies, and few military establishments, schools, fortifications, arsenals, and those of inferior quality. It must be observed, that their armies were all formed on a militia system, and recruited by the militia.—*Vide Guibert, Mirabeau, &c.*

NOTE VI.

Chap. 4. page 54.—Mr. Dupin, in the second part of his *Travels in England*, which is more exclusively descriptive of the state of her

naval establishments, quotes a very remarkable passage from the report of the commissioners, charged in 1806 to examine the best means of drawing the theory of naval constructions from the state of infancy in which it was yet in Great Britain. In that report, printed by order of parliament, they say: "The theory of naval constructions has been carried to greater perfection in France than any where else. When we built ships on the exact model of the French ships which we had taken, and that we joined our talent for practical execution to the theoretical knowledge of our rivals, the vessels which we constructed were acknowledged to be the best in our navy." What a crowd of reflections must arise in our minds in reading this passage. Notwithstanding the high reputation and immense force of their navy, the English acknowledge that they have yet much to learn, and do not disdain to take lessons from foreigners, and even from enemies. Thus did the Romans in antiquity: thus should do every wise and enlightened nation.

NOTE VII.

Chap. 5. page 64.—This important rule, to construct every fort in the country, with a view to the part which it is destined to act in the general system of the national defence, cannot be too much insisted upon. From having neglected to organize such a system, on proper and scientific surveys, the greatest part, perhaps the whole of our defensive works, after all the expenditure which has been lavished upon them, will be found unfit for the purposes to which they are destined. They were merely erected with a view to cover certain points, but not with a view to the part which those points were to act, to their properties and relations with each other, as grand depots of military or naval means, points of attack or of descent, in first or second line, supporting or supported, covering communications, movements, or destined to concentrate forces, &c. The detail of these principles would be endless.

NOTE VIII.

Chap. 5. page 65.—If the memoirs, charts, and plans contained in the topographical office, be not kept with care, and fall into treacherous and unfaithful, or even into imprudent hands, they may be productive of the most serious evils, and direct the enemy in his attempts. The least inconvenience which will result from such carelessness, will be the useless and immense loss of time squandered in doing over and over the same surveys when works are to be erected. Indeed, the advantage of having all the basis and preliminaries of every enterprise, of every plan of cam-

paign, of every civil or military work, thus drawn out and laid down beforehand, is so clear that it requires no comment.

NOTE IX.

Chap. 5. page 66.—In pursuing a course of experiments and improvements, which is always a useful occupation, our artillery should however remember that our military instruction is yet in its infancy, nor wait to establish our system of artillery on a uniform, simple and convenient footing, till they have run over the same round of errors and trials which have brought at length the European artillery to such a state of formidable perfection. The first and essential point is to render our artillery uniform, so that as many pieces and wheels as possible may be the same in all the calibers both of cannons and caissons, and thus replaced with ease when any one is put out of service, shattered, worn or broken. In fixing on a system of artillery, we had best begin by profiting of the experience of Europe. We can hardly expect to imagine any thing which has not been imagined and tried under every form in the course of three centuries of uninterrupted experiments, intense meditations, and constant improvements in France. And after all the wars of the revolution, in every climate, in every nature of soil and country, mountains, plains, marshes and deserts, the French artillery, the most scientific in Europe, have uniformly come to the conclusion that its system, with very slight improvements, was brought to perfection about forty or fifty years ago, under the direction of the celebrated Gribeauval. The improvements which some officers of brilliant talent and imagination, Montalembert, Congreve, &c. have since attempted, have generally been given up as futile and inconvenient.

NOTE X.

Chap. 5. page 70.—In the course of this work, I have always considered the ordnance department as distinguished from the artillery; but why they are thus divided in two departments I could never understand. England is the only country of Europe where this disposition exists, either because it was so established at first, or because it was thought that the immense quantity of armament which that country fabricates, required a separate corps, occupied with no other functions. But even in England this system is vicious. The advantage of uniting these functions in the artillery is obvious and clear. The best judges of the fabrication of arms are those who use them and try them constantly: the theory of that fabrication which requires such accurate and experimental knowledge, is best improved by practice, and the practice by theory. The corps of the ar-

tillery loses much of its value by this division of its labours ; it becomes a mere corps of cannon firers.

In France (and the artillery in all the rest of Europe was more or less modelled upon the French) the young officer destined to that service, after two or three years of preparatory studies, spent two years at first in the polytechnic school, to acquire general mathematical information, and as many afterwards in the school of application of mathematical science, to the particular service of the artillery. He entered then as second lieutenant into an arsenal, to study and practise the fabrication of armament, powder, projectiles, fireworks, &c. He passed into a regiment of artillery as first lieutenant : when promoted to the rank of captain in second, he returned to the arsenals, and when he rose to the first captaincy, took the command of a company. On his next promotion, he became a *sous directeur* of artillery, and superintended the fabrics ; he then passed to the command of a battalion or squadron of heavy or light artillery, to the direction of an arsenal, the command of a regiment, &c. The construction of all batteries and military reconnaissances, conjointly with the engineers, the administration of the armament and warlike approvisionnement of armies, the erection of temporary bridges on pontoons, made part of his attributions. Thus, in the course of his service, an officer of artillery became perfectly acquainted with the fabrication of armament in the arsenals and all its theory, with its properties and use in the field, with the command and administration of troops, both of horse and foot, and was a finished officer by the time that he had reached the higher ranks of his profession. The artillery furnished excellent staff and general officers : Napoleon, Pichegru and Marmont were formed in that service. In this point of view it would be of invaluable use in America.

NOTE XI.

Chap. 5. page 71.—A slight review of the composition and functions of the corps of engineers in France, will show what importance was attached to it in that country. Till lately, France was the only country which had such an establishment ; the engineers of all the other powers of Europe, with the exception of a few eminent and self-taught individuals, were very bad. Holland, Austria, Prussia, Sweden, and Bavaria, have however produced some men of science and talent in that profession ; Coehorn, Landsberg, Glasser, Virgin, Rosard, &c.

The corps of engineers in France was divided in several classes, applied separately to the civil, military or naval services. So numerous and im-

portant are the cares which each of these services require from an engineer, so abstruse the calculations and meditations necessary to carry them to perfection, that the advantages of this division of labour are evident at first view. Brought up in the same preliminary schools, the general instruction of these classes was similar and uniform, their rank and respectability the same; they often co-operated either with each other or with the officers of artillery in the same works.

The topographical engineer might be said to lay the ground-work for the others to work upon; they depended on the good and intelligent execution of his surveys, and on their being adapted to the purpose for which they were required, either for establishing systems of military or naval defence, or opening proper communications, roads, bridges and canals. The topographer was not, therefore, considered in France as a mere surveyor or landscape painter, but as a most useful and important officer, equal in rank and respectability to the rest of the corps of engineers. In the staffs of armies, their services were considered as indispensable. I need only mention the names of Berthier, the friend and companion of Napoleon, Generals Bacler D'Albe, Vallogne, Colonels Henry, Puissant, &c. to show the rank and character of these officers.

Another class of engineers was exclusively charged with naval constructions, ship building, &c. Inferior as the French navy was latterly to the English, in this branch it was superior, by the public confession of the best judges in England. (*Vide note 6.*)

Another class, applied to the civil service, was charged with the construction, reparation, preservation and administration of all public works, buildings, roads, bridges, canals, &c. The beauty, the grandeur and convenience of these works, are known to all who have travelled in France; their solidity, and the admirable order and cheapness of their administration, are not equally so. Every project was maturely discussed before it was put in execution, and then executed under the direction, inspection and administration of that excellent corps of officers, who had all received a profound, scientific and uniform education in the same schools, and worked on the same principles.

The corps of military engineers comprised seven generals, 102 superior officers, 434 subaltern officers, besides six companies of miners, 576 men, and four battalions of sappers or pioneers, 7092 men; these last were chiefly charged with superintending the details of the work traced by the engineers, a most useful establishment. For it does not suffice to trace works; they must be conducted by workmen who understand them. Such a corps on a small scale would be very desirable here.

The corps of military engineers was not merely charged with tracing the military works required of them, on plans adapted to the purpose to which they were destined, and to the sites where they were situated; they were also charged with their construction, reparation, preservation, and all the immense details of the administration of these labours. The admirable order and cheapness of that administration, I need not refer to. Military roads, bridges and canals, the military topography of the frontiers, the framing of military memoirs, defensive or offensive, military reconnaissances, exposing the best means of employing their services on every occasion, entered also into their attributions.

NOTE XII.

Chap. 6. page 77.—We have subjoined in our Appendix (No. 2), the excellent report of Mr. Calhoun, with that of General Bernard and Colonel M'Ree annexed. Until these schools be established we can never expect to have a good army, but we must remember that four years of preparatory studies, and two of attendance at the school of application, are necessary to form a good engineer.

APPENDIX No. I.

Report of the Marshal Duke of Ragusa, on a work, entitled, "Travels in England and Essay on the Improvements of the Artillery and Engineer Departments in that Country," by Chevalier Dupin, Corresponding Member of the Institute.

(Royal Institute of France.) (Extracted from the Maritime and Colonial Annals.)

The Perpetual Secretary of the Academy of Mathematical Sciences, certifies that the following extract is taken from the minutes of the meeting of Monday, 23d March, 1818.

THE Academy has commissioned me, with Messrs. De Prony and De Rosilly, to report on a Manuscript, entitled, "Travels in England and Essay on the Improvements of the Artillery, &c. by Mr. Dupin, Naval Engineer. This task we are going to fulfil.

The author undertook his voyage with all the means of rendering it useful in its results, the best recommendations, the talents necessary to see and examine with profit, and an ardent love for science, by which he had been already more than once distinguished. Mr. Dupin was uniformly well received in England.*

In his manuscript he has chiefly attended to the state of the *materiel* of war in that country; but in our account of his interesting work, we shall not confine ourselves strictly to follow the order in which he has arranged his subject.

1st. MILITARY ESTABLISHMENTS.—Mr. Dupin has visited with attention the chief military establishments of Great Britain, Woolwich, Portsmouth, Chatham, &c.

* Chiefly by the most distinguished military characters of all ranks, General Hutchinson, the former commander-in-chief of the army of Egypt, Generals Ferguson, Long, Robert Wilson, the celebrated military writer, the Colonels of artillery and engineers, Mudge, Chapman, Elphinstone, Miller, Griffin, Captains Colby, Rutherford, &c.

Every thing relative to the *personnel* and *materiel* of the artillery, both in the land and sea service, and all fortifications in England, depend on one branch of the war department.* Woolwich is the most important arsenal of that country, and comprises workshops (*ateliers*) of all kinds for the fabrications of the artillery, a foundry, magazine, barracks, a military school, &c.; in short, all that is necessary for instruction and for preparing, preserving, and putting in service the *materiel* both of the land and sea service.

Every thing at Woolwich is on a grand and even magnificent scale; the neighbouring grounds have been drained at great expense; the Thames, bordered with granite quays, and the sands deposited by the river, which seemed accumulated beyond the power of man to remove, dispersed by a steam-engine of prodigious power. Canals, with well-devised sluices, convey the transports to the very door of the store-houses, which are equally remarkable for their vast size, their elegant and convenient construction, the care with which they are kept, the canals which divide them, to guard against the communication of fire, the iron bridges which connect them, and the immense and well classed *materiel* which they contain.

Most of the fabrications for the use of government are carried on at Woolwich, the other establishments being mere depots. Powder and small arms are not fabricated, but purchased by government and proved before they are received. The artillery cast at Woolwich is all brass. The iron pieces are chiefly cast at the cannon foundry in Scotland, a most important establishment, where all the processes of the manufacture have been brought to a point of singular perfection.

The parks of Portsmouth and Chatham are, next to Woolwich, the chief depots of the British artillery, especially for the sea service. The same grandeur is displayed in their works, the same care and order appears in their details, the same quantity of *materiel* is deposited in them.

2d. **FORTIFICATIONS.**—Portsmouth and Chatham, those important positions, containing such a mass of military stores, are fortified, and their works were strengthened at the time that an invasion was feared from the French army encamped at Boulogne. Those of Portsmouth are remarkable from the judicious management of the waters to augment their defence. At Chatham the casemates constructed in the works, suffice to lodge the whole corps of sappers, miners, and pontoneers. Generally there is nothing remarkable in the fortifications of England. They are con-

† A vicious disposition. (*Vide note 10. chap. 5.*)

structed from French books. Vauban is the chief oracle of the British engineers as of all others; Carnot's works are esteemed; some of Montalembert's they tried, but they proved too expensive, even for the finances of Great Britain. Some less important but ingenious details, proposed by French authors, have been executed, and towers (1) of a simpler construction than ours, built on the coast. A plan of Gibraltar *in relief*, represents the multiplied casemates by which the English have endeavoured to reduce to absolute absurdity attacks which were already considered impracticable.

3. MACHINERY.—The most remarkable circumstance in the British artillery is the machinery employed in its fabrications. The habitual use of machinery has made such progress in England, and even the smallest manufactures are supported in that country by such ingenious inventions, that her great military fabrics must necessarily have received proportional improvements. The English value man at a very high rate (2); their object is to reduce his labour as much as possible to that mere direction, which must be exercised by an intelligent being, and to draw from the powers of brute matter or animal nature all their moving forces. The steam-engine, the hydraulic press, and various combinations of these two machines, are at this day the chief agents of British industry. The work of Mr. Dupin gives some very clear and useful details on such machines as he had occasion to visit.

The steam-engine is carried to a high degree of perfection in Britain. It is really a wonderful sight to see it work with so little noise and so much regularity, so precise, so punctual, and yet so powerful, that it produces the effect of 200 or 300 horses, with a rapidity which can be augmented to any required degree of swiftness.

The hydraulic press of Pascal, improved by Bramah, furnishes also powers which can be diversely applied. By means of that press, the British squeeze to the smallest possible volume their military stores, equipments, provisions, especially their forage, and thus render their conveyance so easy, that in Portugal their armies always enjoyed plenty before a starving enemy.

In their arsenals, one single man, to whom the lever of Bramah gives the lifting strength of fifty, presents to the instruments animated by the steam-engine, all kinds of materials that seem to be fashioned by their own voluntary motion. Wood, iron and brass are presented to the

(1) Martello towers.

(2) This is certainly a mistaken notion. No people value the life of man so cheaply, but machinery is cheaper.

moving force of saws, planes, knives, wedges, files and augers; they assume in a thousand different ways every kind of curve in their surfaces, and every possible shape, without noise, without any apparent effort and with inconceivable rapidity.

The emperor of Russia, in his visit to England, purchased two Bramah's presses and thirty steam-engines, not with the view of depositing them as a barren decoration in his museums, but of employing them in his arsenals. Shall we observe that the steam-engine, originally derived from the discovery of a Frenchman, is at this day one of the most powerful means of the prosperity of Britain? that the hydraulic press, a French invention, is one of England's most useful machines? that the mechanician Brunel, a Frenchman, now directs the chief mechanical labours of Great Britain? What has not been invented by French genius? and what is the invention of which British policy has not availed itself.

4. MILITARY INSTRUCTION.—A good instruction being the first foundation of all success, the English, for some years past, have applied with redoubled care to military education. They chiefly endeavour to form a corps of artillery and engineers, able to rival those of any other nation. In 1808 they established a school for that purpose at Woolwich, on a large scale, constructed vast buildings, with all their useful dependencies, halls, dwelling-rooms, laboratories, cabinets of models, a library, &c. Professors were invited, installed and lodged, concourses opened for the election of scholars, in which the candidates were examined after one year of preparatory studies, and those who were admitted, entertained four years in the school at the expense of government. Their studies were chiefly directed to mathematics, physics, chemistry, mechanics, fortifications, topography and geodesy, ballistics, the application of the theory of all these sciences to military practice, French, drawing, fencing, dancing, &c.

The annual examinations are conducted at Woolwich with great impartiality. The value of each science is represented by a given number, proportioned to its importance; the value of the scholar's examination, by a portion of it, proportioned to his progress in that science, and the sum total of each scholar's number in all his classes, gives the estimated value of his instruction, according to which he is afterwards ranked and promoted. This method, which necessarily excites great emulation, was adopted, as we believe, in imitation of the institutions of our Polytechnic school (1).

Schools, well kept, and well organized, have been established for the

(1) These ameliorations are due to Col. Mudge, the present Gov. M.R.S. of London and Corresp. Inst. France.

privates, as well as for the officers (1). They learn in these schools, reading and writing, arithmetic, and a tincture of geometry and mechanics; nor are these lessons merely an illusive and pedantic exhibition, in a country where every class of workmen and mechanics have got excellent elementary treatises of the usual and profitable application of scientific theories to the practice of their professions.

Those schools for the privates, have also libraries attached to them; and so much has a taste for reading spread itself in the army, that lately a regiment sailing for the colonies, subscribed to purchase a set of books, which government immediately augmented at its own expense. In general the British government neglects nothing to secure the services of useful men, by rendering their condition agreeable. At Woolwich a whole street of small but neat houses has been constructed, to provide with isolated and private dwellings, those cannoneers who have families.

At the school of Chatham our author saw the troops exercising on a vast ground, prepared for the purpose. They raised intrenchments, attacked them, (the sappers and miners by their peculiar modes of attack) whilst the pontoons, in silent order, manœuvred with their pontoons at the word of command, rapidly *deploying* and *redeploying* them (forming and breaking up the bridge). The English were far behind us in military instruction twenty years ago; since that time they have studied our institutions, our wars, successes, and faults, our books and experience. They copy us, it is true, but the English are apt scholars, and have often surpassed their masters.

MATERIEL OF THE ARTILLERY.—In the depot of Woolwich alone are above 10,000 cannon, and an immense number of mortars, howitzers, carronades, and swivels. The Emperor of Russia was astonished at finding such a mass of armament, &c. in a nation that has so profusely supplied all kinds of arms, since twenty-five years, to all who would use them. He was told that before the war, this depot contained 25,000 cannon, and other *materiel* in proportion; besides which, enormous quantities were furnished by the continual labour of the private foundries.

The parks of Chatham, Portsmouth, Plymouth, although smaller, contain also a great quantity of artillery. Every object is ranged in these magazines with the most perfect order and exquisite neatness, classed by calibers, taken to pieces, packed, embalmed and corded, ready for embarkation, *so that, in time of the profoundest peace, England, in twenty-four hours after the order is given, can despatch to any part of the globe, an immense mass of military stores, and means of destruction.* From

(1) An excellent institution, and deserving imitation.

time to time, they are visited, unbaled, cleaned, and then packed up again in their cases and barrels.

Enormous quantities of highly finished projectiles lie in the arsenals, some in piles of 20,000 or 30,000, others loaded, adapted to their cartridges, (*ensabotés*) and packed in boxes and caissons. They contain a number of mortars to fire granadoes, for the defence of towns, complete equipages of mountain artillery, a quantity of cast and forged iron carriages for the defence of the coasts and colonies, place carriages, and coast carriages, which are merely naval carriages on frames, turning in the French manner, incendiary balls and *carcasses* of all kinds, &c.—It did not enter into our traveller's plan to enumerate the particulars of the general system of field artillery, recently adopted in the British army. We know that it is constructed at great expense, with great care and intelligence, and possesses some remarkable advantages as to the facility of being easily embarked and disembarked, a condition indispensable in England.

IMPROVEMENTS AND INNOVATIONS IN THE BRITISH ARTILLERY.—The British officers of artillery have been lately very busy about improvements, but although their discoveries have been announced with some ostentation, it does not appear that they have invented any thing very formidable or destructive. In 1811, incendiary balls, of a kind known a long time since in France, were tried before the admiralty as a new invention; they have howitzers loaded with shot (1), to which they attach a great importance. The best judges of such inventions are those against whom they are directed, and their effect upon our troops proves that we should adopt them (2).

Amongst the different experiments which have been undertaken in England for the sake of improvement, those begun by Dr. Hutton (3) at Woolwich, on the *tir* (on the swiftness and direction of the projectile) of the artillery, are most remarkable. These experiments are continued by the chiefs and professors of the arsenal and military school. Much talent, care and perseverance, and a great deal of expense, have been applied to them. They will teach to the artillery of other nations, those elementary principles of ballistics which are yet too little known. A most exact pendulum, of very large dimensions, is employed in these experiments, and the wheeling disks, invented by a French officer, (4) are sometimes used.

(1) Shrapnell shells.

(2) In writing this passage, the duke of Ragusa probably thought of the battle of Salamanca, where he had been wounded by one of these shells. It is the opinion of the best judges, that but for his wound, he would have gained the battle.

(3) See a full account of these experiments, in Gay de Vernon, vol. I. chap. vii. no. 48, p. 102-116. Paris edition of 1805.

(4) Col. Grobert.

Mr. Dupin was agreeably surprised to find the British officers trying some experiments which he had proposed in France, to ascertain the essential properties of the large timber employed in constructions. In general, the spirit of military improvement has taken a grand and decisive character in Britain. In some affairs, they suffered from our lancers; they immediately organized corps of lancers; in others, they were charged by our cuirassiers, and whilst the London papers inveighed against them, the British general, like an able and enlightened chief, went in person to visit those manufactories and work-shops, at Paris, where our cuirasses are fabricated.

Several experiments have latterly been made for lightening the heavy artillery, especially for the sea service, for however secure the British navy may appear in the possession of its present supremacy, their government still apply themselves with ardour to improve it.

Generals Congreve and Bloomfield have also turned their thoughts towards lightening the weight of the heavier calibers of the artillery. General Congreve's cannons were cited at first as possessing some wonderful and particular advantages over those of General Bloomfield. Though these may be exaggerated, it appears, from repeated and exact experiments, that they are actually superior, and both have some considerable advantages over the ordinary artillery for the particular services to which they are destined.

General Congreve is the most active promoter of every innovation in the British artillery. He has occupied himself very much about the construction of all kinds of ordnance carriages, and published a work on the subject, but in which we found nothing but what we had frequently read in French authors, especially in Montalembert. He has, however, taken for that work a patent, which if it cannot confer upon him the glory of an inventor, secures to him the valuable monopoly of the sale of these carriages to the *armateurs*, although, were it not for his patent, they might easily have constructed them from French books. These inventions have, nevertheless, been appreciated, at least by the public, with that partiality which so easily attaches itself in England to every thing that touches the national glory.

The chief title of General Congreve to fame, is the invention of those rockets that bear his name. Before they were introduced in England, they were used by the Indians, who employed them in the defence of Beringapatam. Their use was proposed in France, where they were rejected as producing more noise than effect.

It is generally believed, or at least asserted in England, although without the smallest foundation, that the rockets had a most powerful effect in the last war, especially at the battle of Leipsick. The artillery of several powers are now seriously studying their properties. We hope that the French artillery, which has some right to give examples, will not follow this one. For, except on a very few occasions, those rockets have no military effect whatsoever, and it would be more for the good of humanity, than of the military profession, that no more powerful weapons were used in time of war.

The English use rockets of all calibers, for the land and sea service, against the infantry, the cavalry, &c. ; they have incendiary rockets, others loaded with shells, &c. To these General Congreve has added a new variety, which is indeed of his own invention. His new rockets carry a parachute, which unfolding itself majestically at the very top of the curve which the rocket describes, supports sometimes a bomb, destined to carry destruction on some ill-fated city, (provided it meets with a favourable wind) sometimes an incendiary ball, which, like some blazing comet, casts its glaring light upon the nightly movements of the enemy. As General Congreve's genius has soared to such high inventions, we cannot foresee where he intends to stop. His modesty had probably rendered him too diffident of his powers, when he went no farther than to assert to one of the great dukes of Russia, that had the war continued, he would have enabled the British army to do without cannon or musketry.

CONCLUSION.—Besides the above-mentioned details, the manuscript of Mr. Dupin contains some very useful descriptions of the naval artillery, of the armament of ships, of the topographical labours undertaken under the direction of Colonel Mudge, &c. An interesting description lays before the reader's eyes the magnificent tableau of the Thames at London, loaded and surrounded with such monuments of power, riches and industry.

Mr. Dupin, in pursuing his travels, has sent us two other manuscripts, in which he more particularly treats of the navy. An enterprise so useful and so important, conducted with such praise-worthy zeal, and accomplished with such talent, will no doubt draw attention and encouragement upon that young engineer, who has already honourably distinguished himself. Your commissioners conclude their report by proposing to you to print in the *Collection des Savants Etrangers* the excellent work of Mr. Dupin.

(Signed)

DE ROSILY,
DE PRONY,
MARSHAL DUKE OF RAGUSA.

Approved and adopted by the Academy, and certified an exact copy conformable to the original, by the Perpetual Secretary, Chevalier of St. Michel and St. Louis.

DELANBRE.

APPENDIX No. II.

Letter from the Secretary of War, to the Chairman of the Military Committee, upon the subject of an additional Military Academy, and a School of Practice.

DEPARTMENT OF WAR.

SIR,

15th January, 1819.

In reply to that part of your letter, of the 20th of November, which requests my opinion on the expediency of establishing one or more additional military academies, and their places of location, and such other information and facts as you may deem proper to communicate on these subjects, with the probable annual expenses of these establishments, I have the honour to make the following statement:

The number of cadets now authorized by law, is two hundred and fifty, who are divided into four classes; the cadets of one of which, every year, terminate their studies, and are promoted into the army. As the academy is now nearly full, it is probable that the number which will annually terminate their studies, and, consequently, will be candidates for promotion, will not be much short of fifty. The number of vacancies in the army which have occurred, from the 1st of August, 1816, to the 1st of May, 1818, has been one hundred and forty-eight, or about eighty-four per annum; but, as it is probable that the causes which have operated to produce so many vacancies in this time have been accidental, and consequent on the change from active service to the inactivities of a peace establishment, there will not, it is believed, in future be so many; and that the cadets who will annually terminate their studies at West Point, will be equal, or nearly so, to the annual average vacancies. In this view of the subject, an additional military academy would not now be required. But it seems to me, that the question ought not to be determined, by a reference simply to the wants of our military peace establishment, which, from our geographical position, and the policy of our government, will always bear a small proportion to the population of the country, and to our military establishment in time of war. So far from graduating the number or extent of our military academies, by the want of the army in time of peace, the opposite principle would, probably, be more correct; that, in proportion as our regular military establishment is small, the government ought to be careful to disseminate, by education, a knowledge of the art of war. The army itself is a practical school of this art, which, except in the higher branches, may, where it bears a large propor-

tion to the population of the country, supersede other modes of perpetuating or disseminating this indispensable art. But, in a country situated as ours is, with a small standing army, and far removed from any power from which we have much to fear, the important knowledge of the art of defending our shores, will, in a long peace, without the particular patronage of the government, be nearly lost. The establishment of military academies is the cheapest and safest mode of producing and perpetuating this knowledge. The government ought to furnish the means to those who are willing to bestow their time to acquire it. The cadets who cannot be provided for in the army, will return to private life; but, in the event of war, their knowledge will not be lost to the country. The government may then avail itself of their military science, and, though they may not be practically acquainted with all the details of duty in an army, they will acquire it in a much shorter time, than those who have not had the advantage of a military education. No truth is better supported, by history, than that, other circumstances being nearly equal, victory will be on the side of those who have the best instructed officers. The duties of a soldier are few and simple, and, with well instructed officers, they can be acquired in a short time; as our own experience, and that of other countries, has satisfactorily proved. To form competent officers, in the present improved state of the art of war, is much more difficult, as an officer, besides a knowledge of the duties belonging to the soldier, has others of a more difficult nature to acquire, and which can only be acquired by long experience, or by a regular military education.

With these views, I would recommend one additional military academy. It ought to be placed where it would mutually accommodate the southern and western portions of our country, which are the most remote from the present institution.

Besides an additional academy, I would submit, for the consideration of the committee, the propriety of establishing a school of practice, to be fixed near the seat of government. On this important subject, I respectfully annex, as a part of this communication, a report from General Bernard and Colonel M'Ree, to this Department; in which the subject is so fully discussed, as to supersede the necessity of any further observations.

The expenses of erecting the necessary buildings for an additional military academy, on a scale as extensive as that at West Point, would cost about one hundred and thirty thousand dollars, of which sum, however, but a small part would be required for this year. The current expense of the institution would (excluding the pay of the cadets, which is

sixteen dollars per month, and two rations per day,) probably amount to about twenty-two thousand dollars per annum.

For the school of practice, there would be but little expense, except the erection of the necessary buildings for the accommodation of the institution. The pay of the superintendent and professors, should they be even taken from the citizens, would not exceed eight thousand five hundred dollars, which would constitute nearly the whole of the current expense, as the lieutenants of artillery and engineers, while at the institution, will not receive any additional pay or emoluments. The expense of the buildings may be estimated at eighty thousand dollars, of which, however, but a small part would be required for the present year.

I have the honour to be,

Your most obedient servant,

J. C. CALHOUN.

Hon. R. M. Johnson, Chairman of the Committee
on Military Affairs, House of Representatives.

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*Considerations on the Course of Instruction necessary for the Officers of
the different arms of an Army.*

Circumstances of locality; the nature of the operations of war; and the variety of the means employed for the purposes of destruction and preservation, have naturally led to the subdivision of an army into several parts; which differ in their manner of combating, but which are also intended to render reciprocal aid to each other, to co-operate most efficaciously to the same end, and to constitute, when in action, but one combined whole.

This subdivision existed among the ancients, as it does among the moderns; and with both, (the absolute and relative numerical force of these subdivisions being supposed nearly equal) the systems of war have been uniformly more perfect, and productive of greater results, in proportion as the several parts were better calculated to act with promptitude, precision, and in concert. These parts are designated in modern armies by the word arm; and consist of infantry, cavalry, artillery, and engineers. Each of these arms acts occasionally as principal or accessory. In a battle the infantry is in general the principal arm; while the three others are more or less accessories; in the pursuit of a retreating army, the cavalry becomes the principal; and in a siege, the artillery and engineers are the principal arms, and the rest are merely great auxiliaries.

Among the means which modern discipline employs, to give the greatest effect to the combined action of these arms, is instruction. And here, the same motives which have resorted to a subdivision of labour, as a powerful cause of perfection in objects of general industry, have also led to a subdivision of military instruction, as most productive of that concert and efficiency desirable in the operations of an army. This instruction, and the objects and advantages of its subdivision, are the subjects of present consideration.

To obtain, by the aid of military instruction, greater effect in the particular or combined employment of the different arms, two modes immediately present themselves: *First*, That each arm should be composed of individuals versed exclusively in the theory and practice of that arm; *Second*, That the individuals composing each arm, should be instructed equally in the theory and practice of all the other arms. The first of these methods is insufficient; because, in giving to each individual merely the knowledge necessary to the duties of his own arm, it leaves him deficient of what is necessary to connect the operations of that arm with the operations of the rest, as parts of one general system. The second is impracticable; because it is the privilege of but few individuals to possess that facility of intellect which is requisite to embrace four branches of knowledge, as extensive as are those in question, and to practise them all, with that correctness and promptitude, which is the peculiar advantage of such as devote themselves principally to but one of these branches. In order to avoid both of these inconveniences, the theoretical and practical knowledge necessary in the conduct and operations of an army, has been divided into two distinct classes; the one embracing whatever is common to all the arms; the other confined to what particularly appertains to each arm. A consequent and similar division has followed in the instruction; the first branch to include what is necessary and useful to the service of every arm; the second to include the theory and practice of each arm in particular. Hence the necessity of an elementary, or common school, where the knowledge common to every arm, should be given alike to all who are intended for the army; and a school of a higher order, for the purpose of increasing (when necessary) the elementary knowledge which has previously been acquired to the extent demanded, and teaching its application to the particular objects and duties of each arm, which constitute a school of application. In those countries which have large military establishments, there is a school of application for each arm. But those nations who, in time of peace, keep but a feeble military force on foot, find it advantageous to unite, as far as possible, these different schools of application in one; where such as are admitted for the service of those arms which demand a more advanced theoretical, or more varied practical knowledge, receive their last degree of academical instruction. In this

last case, the students at the school of application receive likewise two kinds of instruction: 1st. That which is common to the several arms to which they are destined; and 2d, that which is exclusively necessary to the arm in which they are respectively to serve.

Among all nations possessing military academies, the schools of application for such as are destined for the infantry and cavalry, are the regiments of the army in which they are to serve. It is on joining and doing duty with their respective regiments, that they learn to apply the instruction received at the elementary school, and acquire whatsoever relates to the discipline, the conduct, administration, and legislation of troops.*

This cannot be the case, however, with those destined for the artillery and engineers, or the topographical corps. They are all, more or less, liable to be employed separately, and immediately after leaving the school; and are deprived of the advantages peculiar to the officer of infantry or cavalry, of making their first essays in their professional duties, under the eyes of their chiefs, or of those who have preceded them; and being unassisted by the advice or opinions of their superiors in rank, knowledge, and experience, they are not only left without the means of obtaining the instruction of which they are yet deficient, but are also frequently exposed in the execution of the duties confided to them, to compromit the public service by the commission of errors, which too often lead to irreparable misfortunes, and which are productive, at least, of a wasteful expenditure of public property, always beyond, sometimes exceeding an hundred fold, the expense of giving a proper education to the individual who has not been qualified to exercise his profession, with satisfaction to himself, or utility to his country.

These considerations alone appear to us sufficient to show the advantage, if not necessity, of dividing the course of military instruction between two schools; the one elementary, and the other a school of application.

The elementary school at West Point has hitherto been very inferior as such; and altogether inadequate to the objects for which it was established. A project has been presented, however, calculated to place this school upon the footing of the most perfect of the kind which exist. As to a school of application, there is none. The degree of instruction, given to the cadets at the school of West Point, has heretofore been for

* In the military schools of infantry and cavalry in France, theoretical lessons in these branches of military instruction were given to the scholars; and for the sake of uniformity in that instruction, these courses were very useful. The service of the depots served afterwards as a school of application.

the most part limited to a general acquaintance with those branches of knowledge, which are common to all the arms of an army; and which ought to have been extended, and applied to artillery, fortification and topography. The consequence has been, that the officers of infantry, artillery, engineers, and of the topographical corps, have had the same degree and kind of instruction; and the only real difference which existed between them on leaving the school, consisted in the uniform of their respective corps or regiments. If any have been so fortunate as to render themselves serviceable, either in the artillery or engineers, the cause must be sought for, in their own industry, and not in the education received by them at West Point, which was barely sufficient to excite a desire for military inquiries and of military pursuits.

It remains to enumerate the branches of knowledge which are common to all the arms; and those which are necessary, and appertain, more or less exclusively, to each or several of these arms. The subjoined table exhibits the two principal divisions of the instruction. The first part includes the branches of knowledge that are necessary to all who are destined for any arm of the military establishment; either as officers in the exercise of their immediate professional duties, or as men of information, liable, in the course of their military career, to be intrusted with other interests. It is, therefore, that the mathematics for instance are extended farther than is strictly necessary to the officer of infantry; that natural and experimental philosophy, and chemistry, are inserted under the elementary division, rather as forming part of a liberal education than of mere military utility; and finally, the several kinds of drawings are only taught in the elementary division, as an advantageous introduction to the prompt acquisition and exercise of the art of topographical delineations. This division or elementary part of the instruction will require five professors, three teachers, and two instructors. The number of assistants, &c. depend upon the number of individuals at a school.

The same table presents the second part of the instruction, which is in addition to the first, and is necessary to those destined to the engineers, artillery, or topographical corps. Here the mathematics are carried to a higher degree, which is rendered necessary by their application to machines, the theory of artillery, the construction of charts, &c. Descriptive geometry is applied to machines and fortification. Fortification is taught to the extent which is exclusively necessary to the officer of engineers; and artillery to the extent that is only required for the officers at that arm. Geometry and trigonometry receive their application to topographical operations, and spherical trigonometry and descriptive geometry, to the projection, &c. of charts. This part of the instruction will demand four professors. Because, either these two divisions of the instruction will be taught at one school, or two separate

schools. In the first case, the professors of the elementary course will be insufficient, and cannot attend to a course of instruction thus extended: in the second case, the four professors before mentioned, become absolutely necessary. But whether the entire course (or both of these divisions of the instruction) shall be taught at the same, or at two separate schools, it will not be the less indispensable that a division of it, similar to that here established, should exist in fact. The question is therefore reduced to this; shall the elementary, or first part of the course of instruction, be taught at West Point, and the second part at a separate school, to be established elsewhere? Or shall the second part constitute an additional class or classes, at the school of West Point, to consist of those cadets only who are destined for the engineers, artillery, and topographical corps, and who shall have previously passed through the elementary classes?

The second division of the course of instruction exhibited by the annexed table, and which must constitute, either a school, or classes of application, is *practical* as well as *theoretical*. The application of the elementary branches of instruction, and the branches of mathematics, to the theory of artillery, fortification, and topography, forms the *theoretical* or academic part of this division of the course of instruction, while the application of these theories to the circumstances of the ground, &c. requires, and must be taught to the students, by a course of actual experiments, and practical exemplifications in the field. It is necessary to make this remark, in order to a just appreciation of all the considerations which should influence in the decision of the present question.

The advantages which may be derived from a union of the school of application, in the shape of additional classes, to that elementary school, are almost exclusively those of economy, and admit of being correctly ascertained; they consist,

1st. In having certain duties, that are common and necessary to both establishments, performed by the same individuals who are now employed for those purposes at West Point. Such are the duties of the superintendent, most of the officers of the military staff, and disbursing department.

2d. In the purchase of an additional site, which will be avoided.

3d. In saving the additional expense of quarters, academical, and any other buildings, to the extent that they now exist at West Point, beyond the wants of that establishment.

4th. In saving the expense of purchasing a library, instruments, &c. to the extent of those now on hand at West Point.

5th. In saving the travelling and other expenses to which the graduates of the elementary school would be subjected, in order to join and com-

mence their course at the school of application, if these institutions were separate; and,

8th. In avoiding a loss of time on the part of the graduates, which would take place on their transfer to the school of application in the case just supposed.

The following are the considerations which oppose a union, and which consequently urge a separation of these two schools.

1st. The classes of application will consist of those individuals destined for the artillery, engineers, and topographical corps, who shall have graduated at the termination of the elementary course of instruction, and who will consequently be then promoted by brevet or otherwise, in the same manner as those destined for the infantry. There must probably be two classes of application, and the number of students of which they ought to consist, in order to supply the annual vacancies in their respective arms, will not be less than seventy. The school will therefore be augmented by this amount, and will be composed of commissioned officers and cadets, whose rights, interests and occupations will be more or less dissimilar; and who must consequently be governed by regulations, &c. essentially different, which will at once destroy that unity of system, necessary to all military institutions.

2d. The difference in point of rank, in the students of the elementary classes, and those composing the classes of application, will originate claims to precedence and superiority on the one part, and resistance to such pretensions on the other, which no regulations can restrain within proper limits.

3d. It will be necessary to have two sets of professors at the same school, and in several instances two professors of the same department of science, who will be independent of each other. Hence increased occasions of discord. Individual interest and feelings must of necessity, and frequently will be brought into collision; which experience has sufficiently proved, would lead, first to divisions among the academic staff, and finally, to the formation of parties among the officers and cadets, destructive of that harmony and order which should prevail, and are believed essential to the successful operations of the school.

4th. The duties of the two sets of professors, the studies and occupations of the officers and cadets, being different in their character, and requiring to be arranged differently, as to time and other circumstances, will render two distinct systems of organization and police indispensable, which frequently cannot be made to accord, without incurring some inconvenience or injury, or without the sacrifice of some advantage on the part of one or the other division of the school, and perhaps of both. The su-

perintendent will, in fact, have two schools to govern and conduct; his time and attention will therefore be divided, alternately occupied with the peculiar concerns of each, and frequently employed in reconciling conflicting interests. The whole system of administration for the two schools, will be more or less controlled or influenced, by the inconvenient and unnecessary relations in which they are placed to each other.

The advantages and disadvantages here enumerated, as attending the union of the two divisions of the course of military instruction at the same school, are obviously too different in their kind to admit of being compared; nor is it necessary that they should be. The expense attending the separate establishment of a school of application, might be offered as a reason for rejecting it altogether; but by no means for uniting it to the elementary school, when the operations of both would be obstructed in consequence of so doing, and their ultimate success rendered more than doubtful.

Among the advantages that will be derived from the establishment of a school of application, are the means it will afford of providing for other departments of national service besides those which have been mentioned; and by locating it immediately under the eyes of the government, the measures necessary to enlarge, or to adapt it to the particular objects in view, will be more readily ascertained, and applied with greater certainty of effect. The necessity of this institution will become urgent, in the event of one or more additional elementary schools being created. It will then be expedient, for those very reasons of economy which now form the only objections that can be opposed to it; and it will be necessary, because it will enable the respective candidates for the engineer, artillery, and topographical corps, to be assembled at the same school, and to receive in common their last degree of instruction; and because, that, by no other means, can that uniformity in the instruction and duties of each of these arms be attained, which is essential to their perfection.

We are, therefore, of opinion, that a school of application is decidedly necessary to the military service of the country; that, to be rendered efficient, it ought to be separate from all immediate connexion with any other institution; and that it should have a central location, and as little removed as possible from under the observation of government.

Which is respectfully submitted to the honourable J. C. Calhoun,
Secretary of War.

(Signed)

BERNARD, Brigadier General,
WM. M'REE, Major of Engineers.



